

**January 1, 2014 – December 31, 2015 Delaware's Programmatic Milestone UPDATES**

Red = updated 1/15/2015

Blue = updated 1/15/2016

| Target Date       | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable                  | Lead Agency | Comments/Status Updates   |
|-------------------|--|------------------------------|-------------|---|
| <b>Stormwater</b> |  |                              |             |   |
| 12/2014           | Provide training to the regulated community on revised sediment and stormwater regulations (Section 7.1.1.4)                       | Minimum 12 Training Sessions | DNREC, SSP  | <p>More training sessions are planned through 2014, though no dates have been established yet. It is expected 4-6 additional Level 1 sessions will be offered. In addition, 8-10 Level 2 sessions covering more advanced technical topics will be offered. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>The SSP conducted four (4) Level 1, seven (7) Level 2 and four (4) Level 3 training sessions in 2014 for a total of 382 participants. This training has evolved into a 2-day Designer Training program which will be offered starting in January 2015.</p> <p>SSP conducted five (5) separate two-day Designer Training courses in 2015: January (26 attendees), February (28 attendees), April (26 attendees), September (26 attendees), and December (25 attendees) for a total of 131 attendees and 1310 contact hours of training.</p> |
| 7/2014            | Provide technical support to Delegated Agencies for implementing the revised sediment and stormwater regulations (Section 7.1.1.4) | Staff Support                | DNREC, SSP  | <p>Technical staff from the Sediment &amp; Stormwater Program will attend project application meetings for the first 6 months of 2014 to ensure consistency in implementing the new plan review procedures under the revised sediment and stormwater regulations. An assessment will then be conducted to determine whether it will be necessary to continue this support. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>SSP staff attended project application meetings for all delegated agencies through 2014. It was decided that this support would continue into 2015 for select projects.</p> <p>SSP staff continued to attend selected application meetings during 2015. This is expected to continue into 2016 on an as-needed basis. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>                        |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable                          | Lead Agency            | Comments/Status Updates   |
|-------------|--|--------------------------------------|------------------------|---|
| 7/2014      | Develop training videos for the Delaware Urban Runoff Management Model (Section 7.1.1.4) | On-Line Videos                       | DNREC, SSP             | <p>The SSP has contracted with Tetra Tech to develop two (2) training videos for using the new version of the Delaware Urban Runoff Management Model (DURMM). These videos would be delivered through the SSP website to supplement the formal training sessions. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p><b>This task has been completed. Two additional training videos are planned for 2015.</b></p> <p><i>The two additional training videos have been completed. No additional training videos are planned at this time.</i></p>   |
| 2014-2015   | Maintenance Inspections as part of Verification Program (Section 4.2.2)                  | Inspect 200 BMPs                     | Conservation Districts | <p>Districts will continue to inspect closed-out projects and provide inspection reports. The intent is to ensure proper and continued function of the stormwater facilities and look for ways to gain additional water quality improvements. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p><b>Kent Conservation District (KCD) did not have any closed-out projects in 2014. Sussex Conservation District performed 90 BMP maintenance inspections in 2014.</b></p> <p><i>KCD inspected all 22 stormwater BMPs in the CB watershed in the previous bi-annual cycle. The next round of inspections are scheduled for 2016. SCD will continue to provide BMP inspections of closed out projects through 2016. This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| 12/2015     | Construction Inspections (Section 4.2.2)   | Inspect 60 active construction sites | Conservation Districts | <p>Districts will continue to provide construction inspection of projects and monitor for compliance with approved sediment and stormwater management plans. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p><b>KCD inspected 9 active construction sites within the CB watershed through the course of the year. SCD generated 80 inspection reports on active construction sites within the CB watershed.</b></p> <p><i>KCD inspected 30 active construction sites within the CB watershed through the course of the year. SCD generated 80 inspection reports on 20 active construction sites within the CB</i></p>  |

**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b> | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>                                      | <b>Deliverable</b> | <b>Lead Agency</b>                              | <b>Comments/Status Updates</b>  |
|--------------------|---|--------------------|---|---|
|                    |   |                    |   | watershed.  |
| 2014-2015          | Stormwater Water Quality Projects/Stormwater Retrofits for Town of Blades (Section 4.2.2) | 1 BMP              | Sussex Conservation District                    | <p>The District will implement a water quality projects or stormwater retrofits in the Town of Blades. This project funded by the Chesapeake Bay Implementation Grant.</p> <p><b>The Town of Blades stormwater retrofit will commence in spring 2015. Final project to be complete by 6/2015.</b></p> <p><i>The Town of Blades stormwater retrofit project is scheduled to commence in Spring 2016 with an expected completion by 6/2016. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| 10/2014            | Town of Greenwood Urban Restoration Project (Section 7.1.1.4)                             | Project            | DNREC, Conservation District, Town of Greenwood | <p>The Town of Greenwood received a NFWF Small Watershed Grant to complete an urban restoration project to remove channelized ditches, install urban buffers and install a new half-acre wetland and other features to address stormwater runoff within the town. The project has been designed, all permits issued, all court order changes approved. Construction is expected to begin in May 2014 with plantings to occur in spring and fall 2014. Additional funding provided by Chesapeake Bay Implementation Grant.</p> <p><b>A project to stabilize an existing channelized ditch with compost logs was constructed in May 2014 and planted in June 2014. Project is considered complete other than ongoing monitoring and maintenance as needed.</b></p> <p><i>Some minor repair and maintenance work was completed in Fall 2015.</i></p> |
| 9/2014             | Stormwater retrofit for the City of Seaford (Section 7.1.1.4)                             | 1 BMP/Project      | DNREC, SSP                                      | <p>Sussex Conservation District has had a pre-application meeting with GMB who is developing a plan for this project. Plans submitted for review October 2013; comments sent 11/19/13. Spring 2014 anticipated construction date. This project is funded through the Chesapeake Bay Implementation Grant.</p> <p><b>The City of Seaford engineer, GMB, proposed a water quality and drainage improvement project for a location on Virginia Avenue that has caused historical flooding. Existing Ponds were redesigned to provide additional water quality and re-directed to a downstream wet</b></p>  |

**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b>           | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>                 | <b>Deliverable</b> | <b>Lead Agency</b>    | <b>Comments/Status Updates</b>   |
|------------------------------|--|--------------------|-----------------------|--|
|                              |  |                    |                       | pond owned by the City of Seaford in their Industrial Park, thus creating a treatment train approach to water quality. The existing pond at the State Service Center was converted to a wet pond with a gabion forebay. The wet pond then overflowed into a re-designed pond with meandering low-flow channel and floodplain. The project was completed 8/2014.  |
| 6/2014                       | Stormwater retrofit for Seaford Central Elementary (Section 7.1.1.4) | 1 BMP/Project      | DNREC, SSP            | Sussex Conservation District has had a pre-application meeting with GMB who is developing a plan for this project. Plans submitted for review October 2013; comments sent 11/19/13. Spring 2014 anticipated construction date. This project is funded through the Chesapeake Bay Implementation Grant.<br>The stormwater retrofit at Seaford Central Elementary was constructed by SCD in the Summer of 2013. The pond was enlarged to 0.25 acres to provide management of an area that was not previously treated for stormwater management. The pond was landscaped with a native meadow grass on the pond bottom and native trees around the pond perimeter.  |
| <del>12/2015</del><br>3/2016 | Implement Bethel Green Infrastructure Project (Section 8.2.4)        | 1 BMP/Project      | DNREC, Town of Bethel | The Town of Bethel, in partnership with the Town of Laurel, received technical assistance funding from the NFWF to design and engineer a green infrastructure project in the tiny town to address stormwater issues. The engineering and design was completed in winter 2014. Total cost to implement the project is \$456,420. The Town, with assistance from DNREC and their engineer, has submitted a grant proposal to the Chesapeake Bay Trust for \$250,000 to begin the project. They are also actively seeking funding from other state, local and federal sources to complete the project. The project includes the installation of several bio-retention areas, installation of up to 6 Filterra units, a step pool conveyance system, and a 300+ foot living shoreline. DNREC is completing the design for a second project in Bethel to install buffers, swales and other practices to address stormwater runoff from an agriculture field within the town. The town received \$100,000 from the Chesapeake Bay Trust towards this project. Additional funding TBD in the future.<br><br>Funding for the project has been obtained and the first phases of the project are being constructed. The project officially kicked off construction in September 2015. The project is expected to be completed in early 2016. Additional funding was provided by the Chesapeake Bay Implementation Grant through the Local Government pass through funds. |
| 12/2015                      | Urban Watershed Rapid Assessment (Section 8.2)                       | Report             | DNREC                 | DNREC may contract with a consultant to assess urban communities to identify opportunities for stormwater practices in urban areas using methodology developed by the  |

## Delaware's Restore Clean Water Action Items

| Target Date                 | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable  | Lead Agency | Comments/Status Updates  |
|-----------------------------|--|--|-------------|--|
|                             |  |  |             | Center for Watershed Protection.<br><br><a href="#">This work will soon be captured in the MS4 permit SWPPs.</a>   |
| <del>3/2015</del><br>8/2015 | Finalization of Phase II MS4 General Permit for the State of Delaware (Section 7.1.2.2.3)  | Fully developed and fully reviewed Phase II MS4 Permit | DNREC, SWDS | <p>Comments were received back from EPA on the DRAFT Phase II MS4 General Permit for Delaware (MS4 GP) on September 13, 2013. EPA's comments were subsequently addressed. <del>and the MS4 GP is currently in internal review within the Surface Water Discharge Section at DNREC. Once internal review is complete, the DRAFT Phase II MS4 Permit will then be posted on the DNREC SWDS website for public review.</del> <b>The MS4 General Permit began internal review within the Surface Water Discharge Section at DNREC. Due to subsequent vacancy of DNREC's MS4 position, the finalization process was delayed. DNREC was able to fill its MS4 position during September 2014. Once the new MS4 hire is familiar with the permit and finalizes the draft, the DRAFT Phase II MS4 Permit will be posted on the DNREC SWDS website for public review. SWDS expects to address preliminary comments and send it for official public notice by <del>March</del> August of 2015. Several municipalities that drain to the Chesapeake Bay Watershed have been newly identified (through 2010 census data) as requiring a Phase II MS4 permit.</b></p> <p><a href="#">The Phase II MS4 finished the internal review process and was posted on the DNREC-SWDS website for preliminary informal comment in October 2015. This informal comment period will remain open through January 31, 2016. DNREC-SWDS will then address comments, continue outreach efforts, and proceed to formal public notice during the summer of 2016 unless comments warrant significant revision and stakeholder discussion. If this schedule can be maintained, it is anticipated the permit will be finalized and signed effective by October 2016 unless a public hearing is requested.</a></p> |
| <del>12/2015</del><br>2016  | Evaluate the need for further MS4 coverage within the Chesapeake Bay and throughout the state and work with local communities to achieve coverage as warranted (7.1.2.2.4) | Identify municipalities needing coverage, Outreach     | DNREC, SWDS | Through 2010 census data, fifteen additional municipalities in Delaware were newly identified as requiring a Phase II MS4 permit; several of the newly identified MS4s drain to the Chesapeake Bay Watershed. Five of the fifteen newly identified MS4s may be eligible to submit a waiver request. Upon issuance of the Draft Phase II MS4 General Permit (MS4 GP) for public comment, Loss of our MS4 Technical lead has delayed roll out of the MS4 GP, but SWDS will notify newly identified MS4s of requirement for permit coverage and initiate outreach efforts to educate permittees on MS4 GP. SWDS has the goal of   |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable         | Lead Agency | Comments/Status Updates  |
|-------------|--|---------------------|-------------|--|
|             |  |                     |             | <p>transitioning all Phase II MS4 permittees (newly identified and exiting) to the Phase II MS4 General Permit by <del>2015</del> <b>2016</b>.</p> <p>The fifteen (15) municipalities identified as requiring MS4 Phase II permit coverage via 2010 Census data were notified in writing of this change in status in October 2015. This notification letter explained the current status of the Phase II MS4 General Permit, encouraged comments, and notified jurisdictions that they are required to obtain coverage under the Phase II General Permit upon finalization.</p> <p>On November 5, 2015 DNREC and DEAWRA held a MS4 Symposium in Bridgeville, DE to present draft Phase II MS4 General Permit requirements and provide an MS4 networking and training opportunity for those in attendance. DNREC-SWDS will continue outreach efforts via meeting with constituents, newly identified MS4, and interested parties. DNREC is also working to contract for MS4 outreach assistance for Chesapeake Bay communities by Spring of 2016. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| 6/2016      | Revise regulations for industrial storm water sites that addresses not only the Chesapeake Bay TMDLs, but also other TMDLs established within the State of Delaware. The new regulations will also establish new guidelines that reflect new federal mandates, implement stricter standards such as the inclusion of effluent limitations, and may require stricter reporting and monitoring requirements. (Section 7.1.2.1.4) | Revised Regulations | DNREC, SWDS | <p>The revised Regulations were drafted under contract by Tetra Tech under the direction of former program staff. EPA has since released their new multi-sector general permit and staff is trying to make sure the regulations are consistent. So as of right now we are still working on fine tuning our draft and making sure it is consistent with EPA's multi-sector General Permit. We have not yet re-convened the RAC. We anticipate reconvening the RAC in late summer to early fall 2015. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>In 2013 EPA issued their 2013 Proposed Multi-Sector General Permit (MSGP) for industrial storm water, which has since been finalized in 2015. SWDS has compared the Revised Regulations drafted by Tetra Tech to EPA's MSGP and finds that they are not entirely consistent; also SWDS has identified additional items requiring revision due to inconsistency or enforceability concerns in our draft Regulations. In addition, SWDS has received feedback from EPA Region 3 that EPA does not support "permitting by rule" due to the lack of expiration associated with Regulation which is not consistent with Clean Water Act</p> |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable    | Lead Agency | Comments/Status Updates   |
|-------------|---|----------------|-------------|---|
|             |   |                |             | <p>requirements that permit terms be limited to no more than 5 years. Now that the EPA MSGP has been finalized, SWDS is moving towards modifying EPA's MSGP to make it Delaware specific and utilizing a traditional general permit approach instead of permitting by regulation.</p> <p>SWDS has initiated discussions with an outside party to determine costs/level of effort for development of a Delaware specific industrial storm water general permit based on EPA's MSGP. Level of effort estimate should be submitted to SWDS in February 2016. However, SWDS currently does not have funding to proceed with this project. SWDS will continue to pursue funding for contractual support on this effort. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| 6/2016      | Develop a BMP manual for Industrial Stormwater facilities (Section 7.1.2.1.4)   | BMP Manual     | DNREC, SWDS | <p>Draft BMP manual completed July 2012. Final version will be complete once regulations are promulgated. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>All the regulatory references in the draft BMP manual coincide with Tetra Tech's reg updates which never were finalized. A review of EPA's 2013 Multi-Sector General Permit revealed that the updated regulations from Tetra Tech were not entirely consistent with the MSGP; and SWDS also identified additional items requiring revision in the draft Regs due to inconsistency and/or enforceability concerns. EPA Region 3 also expressed concerns to SWDS about the way we "permit by rule". Therefore, SWDS is moving towards a traditional ISW GP to mirror EPA's Multi-Sector General Permit; the BMP manual will need to be updated to coincide with (1) DNREC's current ISW Regulations and/or subsequently (2) the ISW General Permit that SWDS will develop and the companion revised Regulation that will follow the GP. SWDS currently does not have the staffing or contractual resources to proceed with BMP manual revisions in accordance with the above.</p> |
| 12/2015     | Ensure compliance with "Regulations Governing the Control of Water Pollution" for 55 industrial facilities in the Chesapeake Bay Watershed. | 55 Inspections | DNREC, SWDS | The Industrial Stormwater Program currently requires that sites be inspected once every three years; the Surface Water Discharges Section has a goal of inspecting each site located within the Chesapeake Bay at least annually to provide updated data to the Chesapeake Bay Program. An Industrial Stormwater Compliance Inspector was hired in March 2011.  |



## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable                     | Lead Agency | Comments/Status Updates   |
|-------------|--|---------------------------------|-------------|---|
|             | Conduct industrial storm water inspections at a minimum of biannually, with a goal of annually (Section 7.1.2.1.4) |                                 |             | <p>Between March 2011 and March 2012, all 55 sites in the Chesapeake Bay Watershed were inspected. 46 were found to be in compliant and 9 were non-compliant. Those out of compliance had follow up inspections. Five of the nine sites were brought into compliance as a result of the re-inspections by March 2012. The four remaining facilities were working to come into compliance – one received a notice of violation and one was under investigation. Between April 2012 and April 2013 43 out of 55 sites were inspected where 38 were in compliance with the regulations and 5 were out of compliance. Re-inspections were completed on those out of compliance to bring them into compliance. Between April 2013 and April 2014 inspections continued – <del>a report will be included in the CBRAP semi-annual report for 2013 progress</del> <b>51 of 53 sites were inspected. Of sites inspected 48 were in compliance. DNREC continues to work with the non-compliant facilities to resolve outstanding issues.</b> This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>Between April 2014 and April 2015, thirty-eight (38) inspections were performed and sixteen (16) facilities were found to be in compliance. Conversely twenty-two (22) facilities were found to be out of compliance with the regulations. Seven (7) of the 22 non-compliant facilities have since returned to compliance. The SWDS continues to work with the remaining fifteen (15) facilities to address outstanding items.</p> <p>Between June 2015 and November 2015, twenty-two (22) inspections were performed in the Chesapeake Bay Watershed. Three (3) facilities were found to be in compliance at the time of the inspection and nineteen (19) were found to have corrections needed to achieve a compliant status. Four (4) of the non-compliant facilities have since returned to a compliant status. SWDS continues to work with the remaining fifteen (15) facilities to address outstanding items.</p> <p>All fifty-two (52) facilities requiring NPDES Industrial Storm Water permit coverage were inspected during FY2015.</p> |
| 6/2016      | Work with industrial facilities to collect historic water quality data (TSS,                                       | Water quality data, inspections | DNREC, SWDS | Program intends to “reinvigorate” this historic data collection effort in 2014 now that facilities that are required to do so under the permit should have a couple years of benchmark  |



**Delaware's Restore Clean Water Action Items**

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable   | Lead Agency        | Comments/Status Updates  |
|-------------|---|---|--------------------|--|
|             | <p>nitrogen, phosphorus), for all industrial sites within the Chesapeake Bay Watershed allowed per the current regulations which meets QAPP and QMP standards ; acquire storm water quality data for all Chesapeake Bay industrial storm water sites which meets QAPP and QMP standards ; analyze and track storm water quality data which meets QAPP and QMP standards ;</p> <ul style="list-style-type: none"> <li>•Using historic data collected, develop stricter standards associated with TSS, nitrogen, and phosphorus in the new industrial storm water regulations. (Section 7.1.2.1.4)</li> </ul> |   |                    | <p>monitoring under their belt. Staff is assessing options for stormwater sample collection and processing and will develop a QAPP and/or utilize the DNREC Lab QAPP as appropriate. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>The draft Phase II MS4 General Permit was distributed for informal public comment and new MS4s have been notified of their designation during October 2015. DNREC intended to utilize the NEMO (Nonpoint Education for Municipal Officials) Program through the University of Delaware to perform this Task; however, NEMO does not have the availability to perform the actions detailed in the Task at this time.</p> <p>DNREC is working to contract for MS4 outreach assistance for Chesapeake Bay communities by Spring of 2016. In the interim, on November 5, 2015 DNREC and DEAWRA held a MS4 Symposium in Bridgeville, DE to present draft Phase II MS4 General Permit requirements and provide an MS4 networking and training opportunity for those in attendance. DNREC-SWDS will continue outreach efforts via meeting with constituents, newly identified MS4, and interested parties. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| 6/2016      | <p>Up to five Sussex County communities (Blades, Bridgeville, Delmar, Laurel and Seaford) with a total population of 15,522 (2010 census) may be required to obtain an MS4 permit. We will primarily be working with municipal officials (estimate of 4-5 people per community) to aid them in understanding the requirements within the Phase II MS4 General Permit. Up to seven training sessions may be held for municipal officials and others as well development and provision of educational guides. In addition to the training sessions, each</p>  | <p>5 MS4 Phase II General Permits; 7 training sessions; technical assistance.</p> | <p>DNREC, SWDS</p> | <p>The completion of this task is dependent on filling the Department's MS4 Technical Lead position. The position has been posted, however due to the State Budget there may be a delay in filling this position. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant and is required to be completed by June 30, 2016.</p> <p>The position was filled mid-September 2014. The new MS4 technical lead is working to finalize the Phase II MS4 General Permit. Once that is complete and the draft permit is available for public comment/review, this outreach effort will proceed. This is estimated to occur in the summer of 2015.</p> <p>The draft Phase II MS4 General Permit has been distributed for informal public comment and new MS4s have been notified of their designation as of October 2015. SWDS intended to utilize the NEMO (Nonpoint Education for Municipal Officials) Program through the University of Delaware to perform this Task; however, NEMO does not have the availability</p>  |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable  | Lead Agency   | Comments/Status Updates   |
|-------------|---|--|---------------|---|
|             | community will get one-on-one assistance in creating educational programs (including web based material), illicit discharge detection and elimination programs, municipal good housekeeping programs, wet and dry weather monitoring plans, as well as specific instructions on impaired water bodies and TMDLs (Section 7.1.2.2.4) |  |               | to perform the actions detailed in the Task at this time. Therefore, SWDS will need to issue a Request for Proposal and establish a contract for this task.   |
| 6/2015      | Working with conservation partners, assess nitrogen loads from urban nutrient management (Section 8.6.1)  | Urban nutrient management plans for up to 5 communities  | DNREC, TBD    | <p>The Department is currently working on a proposal to develop an urban nutrient management program and to provide staffing for this task. We also intend to expand the Livable Lawns program to Sussex County and the Chesapeake Bay Watershed which will help us assess the urban nutrient issues. This project to be funded through the Chesapeake Bay Regulatory and Accountability Grant and Implementation Grant.</p> <p>The Livable Lawns Program was launched in 2014. An incentive program for homeowners was offered to encourage those who apply their own fertilizer using the Livable Lawns practices (<a href="http://www.delawarelivablelawns.org/practices.php">http://www.delawarelivablelawns.org/practices.php</a>). Approximately 8.5 acres of lawn were signed up in this program for the Chesapeake Basin in 2015. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| 6/2016      | DNREC Division of Watershed Stewardship will modify an existing database, to house an enforcement tracking system component to track compliance issues at construction sites (Section 7.1.1.4)  | Completion of an automated enforcement tracking system module with the existing database, Mud Tracker. | DNREC and DTI | An enforcement tracking system is desired to more easily track compliance status, enforcement actions, and deadline dates for construction activities within the State of Delaware. All construction activities in the state are currently reviewed on a regular basis during construction, but sites requiring compliance assistance, or those for which enforcement actions have been taken, are not tracked in an easily reportable tracking system and requires excessive resources to track. The existing database that is to be modified is currently called Mud Tracker and is used by DNREC and a few local agencies which have been delegated review authority (New Castle Conservation District, Kent Conservation District, and Sussex Conservation District). Currently, Mud Tracker captures all data pertaining to plan review, construction, maintenance, BMPs, contacts, and fees; this equates to capturing approximately 2/3 of the construction data within the state. To develop a stand- |

## Delaware's Restore Clean Water Action Items

| Target Date                   | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable                    | Lead Agency | Comments/Status Updates   |
|-------------------------------|--|--------------------------------|-------------|---|
|                               |  |                                |             | <p>alone enforcement tracking system would cost approximately \$50,000 to \$100,000 and it would require double data entry by the users and not be cost effective or efficient. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>Due to changes and delays in our IT Department, the project has not yet been implemented. The E-reporting Rule has been approved which includes an enforcement tracking component as well, making the module proposed redundant and unnecessary. There are alternative funds available for development of the enforcement tracking program as part of the new rule. The Sediment and Stormwater Program has requested approval to reprogram that \$15,000 allocated to address other priorities, possibly the development of an app for tracking field inspections and enforcement activities in the field.</p> |
| <del>12/2015</del><br>12/2017 | Refine Sediment & Stormwater Program (SSP) offset program (Section 7.1.1.4)  | Policy & Procedural Guidelines | DNREC, SSP  | <p>The SSP will develop formal policies and procedural guidelines to further refine the offset program under the revised Delaware Sediment &amp; Stormwater Regulations. This will involve coordinating with the Water Infrastructure Advisory Council as well as various stakeholders to expand the list of eligible offsets beyond the current fee-in-lieu process.</p> <p>Currently, the Sediment and Stormwater Program is establishing a workgroup to discuss and develop an offset process. The workgroup will convene over the next couple of months. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| 6/2016                        | Technical assistance will be provided by the Kent and Sussex Conservation Districts to develop general construction stormwater management plans for new agricultural structures to ensure compliance with State stormwater permit requirements in Kent and Sussex Counties. Assistance will be provided for development of up to 40 plans. | 40 Conservation Plans          | KCD, SCD    | <p>Kent and Sussex Conservation Districts continue to work with poultry producers to develop conservation and stormwater plans for new and replacement facilities. This program has been heavily used and we are seeing more demand than funding is available, which has forced the Districts to place some limitations on the services that can be provided. DNREC and the conservation districts are also discussing how to phase out subsidies for this activity in the future. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>KCD has developed 19 poultry house standard plans. SCD has developed 23 poultry house standard plans.</p>  |
| 12/2014                       | Set new tree canopy goals (Section 8.6.2)  | 1 new community/year           | DFS         | Work with local governments to increase urban tree canopy by implementing urban tree canopy goals.  |

## Delaware's Restore Clean Water Action Items

| Target Date               | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable                             | Lead Agency                                  | Comments/Status Updates   |
|---------------------------|--|---|--|---|
|                           |  |   |  | <p>The Town of Delmar signed and passed a Resolution on November 3, 2014 to increase the town's tree canopy to 29% in ten years.</p> <p>Complete.</p>   |
| 2014-2015                 | Increase street sweeping implementation (Section 7.3)                                    | Increase implementation in 2 towns/year | DNREC  | <p>Work with local governments to increase street sweeping frequency. This project will be funded through the Chesapeake Bay Implementation Grant.</p> <p>The Town of Laurel began a street sweeping program, in November 2014, which meets the Chesapeake Bay Program's definition.</p> <p>The pilot program was funded for 2 years on the Town Laurel.</p>  |
| <b>On-Site Wastewater</b> |  |   |  |   |
| 1/2014                    | Promulgate revised and updated on-site wastewater regulations (Section 6.4)              | Regulations                             | DNREC, Ground Water Discharge Section (GWDS) | <p>GWDS held a workshop on October 14, 2013 and a Public Hearing on November 21, 2013. State Law requires that the record stay open for 15 days. The closing date is December 6, 2013. Once the record closes the hearing officer prepares a report that addresses the comments received and forwards to the Secretary. Delaware's onsite regulations were adopted January 11, 2014 and implementation is ongoing. The regulations can be found: <a href="http://www.dnrec.delaware.gov/wr/Information/GWDInfo/Documents/DelawareFinalOnSiteRegulations_01112014.pdf">http://www.dnrec.delaware.gov/wr/Information/GWDInfo/Documents/DelawareFinalOnSiteRegulations_01112014.pdf</a></p> <p>Completed</p> |
| 1/2014                    | Revising and updating on-site and spray irrigation regulations (Section 6.1.1.2)         | Regulations                             | DNREC, GWDS                                  | <p>GWDS held a workshop on October 14, 2013 and a Public Hearing on November 21, 2013. State Law requires that the record stay open for 15 days. The closing date is December 6, 2013. Once the record closes the hearing officer prepares a report that addresses the comments received and forwards to the Secretary. Spray regulations were combined with On-site regulations and were adopted January 11, 2014. Implementation is ongoing.</p> <p>Completed</p>   |
| 2014-2015                 | Review Wastewater Treatment Workgroup protocol for advanced onsite systems (Section 6.6) | Protocol Review and Approval            | DNREC, GWDS                                  | <p>Review and approve protocol for advanced onsite wastewater treatment systems across all of the Bay Watershed jurisdictions. The protocol, once approved, could be used to streamline the current process, which requires each state to individually approve a manufacturers</p>  |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable   | Lead Agency                | Comments/Status Updates   |
|-------------|---|---|----------------------------|---|
|             |   |   |                            | <p>system prior to installation. This milestone contingent on WWTWG progress.</p> <p>Two FTE's participates on the Chesapeake Bay Data Sharing committee sponsored by EPA for approval of N units for on-site wastewater and is an active member of the Wastewater Treatment Workgroup. This work will be ongoing. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| 1/2015      | Begin the implementation of Amended Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal systems (Section 6.4) | Septic Pumpout Tracking Database; Phone application for pumpouts to have GIS capabilities to record location and number of gallons pumped from septic tanks | DNREC, GWDS, DTI           | <p>Performance standards (nitrogen removal systems) for on-site systems 1,000 feet from tidal waters of the Chesapeake go into effect one year from the adoption of the Regulations January 2014. Requirement for waste haulers to report all pumpouts statewide to DNREC January 2016. Implementation of inspections and pumpouts prior to the sale of a property January 2014. Pumpouts are reported to tracking database for inclusion in CBWSM. Presentations on both Pump-outs and inspections were done at the 2014 Delaware Onsite Wastewater Recycling Association Conference. These presentations were both geared toward the Chesapeake bay watershed. Additionally, Secretary Small's Key Note Address pointed out issues and initiatives within the watershed. Staff have provided 12 workshops to the Real Estate community regarding the changes to the Regulations. Staff currently developing 2 classes at Delaware Tech's Environmental Training Center that are geared toward on-site wastewater and will have implications on the Chesapeake Bay Watershed. Also an online course related to the required reporting of pump-outs by Licensed Class F Wastehaulers and the mandatory training course for Class I Inspectors.</p> <p>The Bethel/Ches. Bay inspection program is moving forward with 32 inspections and pump-outs completed to date. Of those 32 inspections, 14 have been found to be Unsatisfactory and 4 have been confirmed to be cesspools.</p> <p>Database needs are ongoing to update systems and make more user friendly applications. This is contingent on resources that become available. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| 7/2014      | Update permit fee schedule (Section 6.3) and review funding for water and   | New fees for wastewater   | DNREC; DE General Assembly | Must be approved by Delaware's General Assembly and signed by Governor. Fees have not been updated since 1991.  |

## Delaware's Restore Clean Water Action Items

| Target Date             | Milestone<br>(Phase 2 WIP Section Reference)                               | Deliverable  | Lead Agency | Comments/Status Updates   |
|-------------------------|--|--|-------------|---|
|                         | wastewater   | permitting and operation; Possible resources to update infrastructure for water and wastewater |             | <p>Legislation was drafted but was not introduced. A second attempt will occur in 2015.</p> <p>The General Assembly passed a resolution to form a Task Group to review funding for water and wastewater. The group will report back to the General Assembly 2016. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| <b>Wastewater</b>       |  |  |             |   |
| 2014                    | Current INVISTA permitted nitrogen load reduced by 60% (Section 5.4)       | Permitted load reduction   | DNREC, SWDS | <p>Amended NPDES permit application was received in April 2013. The facility is evaluating switching intake from <del>river water to well water</del> <b>a combination of river water and well water to well water only</b>. In addition, efforts are underway to incorporate a nutrient trade agreement between Seaford and INVISTA into their respective NPDES permit renewals. The proposed trade agreement would allow Seaford to exchange some of its phosphorous Waste Load Allocation (WLA) for some of INVISTA's remaining nitrogen WLA following the 60% reduction in INVISTA's nitrogen load. The trade agreement was drafted in September 2013 and currently, SWDS is working to incorporate this nutrient trade into the special conditions of the NPDES permits for both the Seaford Waste Water Treatment Plant (WWTP) and INVISTA. It is anticipated that the NPDES permits for both INVISTA and the Seaford WWTP will be issued in 2014.</p> <p>The Nitrogen-Phosphorus Trade Agreement (NPTA) was finalized between INVISTA and the City of Seaford as a companion to the permit renewals of their respective NPDES wastewater permits. Through the NPTA INVISTA traded 27,431 lbs/yr of its TN waste load allocation to the City of Seaford WWTP in return for 1,460 lbs/yr of Seaford's TP waste load allocation. In addition, INVISTA's NPDES permit renewal applied TN effluent limits consistent with Chesapeake Bay TMDL and WIP requirements. As a result the NPDES permit renewal for INVISTA has TN loads reduced by 66% from the previous permit term due to the NPTA and application of TMDL/WIP requirements. INVISTA's NPDES permit renewal went into effect October 1, 2015 and is now current through September 30, 2020.</p> |
| <del>2014</del><br>2015 | Revise the NPDES permits for the towns of Bridgeville and Seaford. Revised | Revised permits  | DNREC, SWDS | <p>Bridgeville's revised NPDES permit <del>came off public notice 4/6/2013</del> <b>became effective on April 1, 2014</b> and is expected to reduce nutrient loads by implementing spray irrigation. The</p>  |



## Delaware's Restore Clean Water Action Items

| Target Date                | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable    | Lead Agency | Comments/Status Updates  |
|----------------------------|--|----------------|-------------|--|
|                            | permits will include a compliance schedule with measurable goals to meet the new waste load nutrient requirements of the WIP (Section 5.4)   |                |             | <p>permit includes a compliance schedule that was reviewed by EPA. SWDS is currently drafting the revised Seaford WWTP NPDES permit. Efforts are underway to incorporate a nutrient trade agreement between Seaford and INVISTA into their respective NPDES permit renewals; the proposed trade agreement would allow Seaford to exchange some of its phosphorous WLA for some of INVISTA's remaining nitrogen WLA following the 60% reduction in INVISTA's nitrogen load. It is anticipated that the NPDES permits for both INVISTA and the Seaford WWTP will be issued in <del>2014</del> 2015. The nutrient trade agreement and the public notice draft of the Seaford WWTP permit are complete. Both the Seaford WWTP NPDES permit and INVISTA NPDES permit must be public noticed and made effective at the same time to accommodate the nutrient trade agreement. Currently SWDS is working to finalize the public notice draft permit for INVISTA. It is anticipated that both permits will be finalized by August 2015.</p> <p>The Nitrogen-Phosphorus Trade Agreement (NPTA) was finalized between INVISTA and the City of Seaford as a companion to the permit renewals of their respective NPDES wastewater permits. Through the NPTA INVISTA traded 27,431 lbs/yr of its TN waste load allocation to the City of Seaford WWTP in return for 1,460 lbs/yr of Seaford's TP waste load allocation. The Seaford WWTP NPDES permit renewal establishes a compliance schedule with measurable goals to meet the waste load nutrient reduction requirements of the WIP. The Seaford WWTP's NPDES permit renewal went into effect October 1, 2015 and is now current through September 30, 2020.</p> |
| <del>10/2015</del><br>2016 | Revise the NPDES permit for the Town of Laurel. Revised permits will include a compliance schedule with measurable goals to meet the new waste load nutrient requirements of the WIP (Section 5.4) | Revised permit | DNREC, SWDS | <p>The NPDES permit for the Laurel Waste Water Treatment Plant (WWTP) will expire on May 31, 2014. A permit renewal application was received by SWDS on October 21, 2013. The SWDS will work on revising the NPDES permit for the Laurel WWTP in accordance with WIP requirements with the goal of placing the permit on public notice in October 2015.</p> <p>A contractual engineer was hired to address the Laurel WWTP permit renewal. The contractual engineer was able to get the draft permit to 95% completion prior to leaving for medical purposes. One outstanding item that needs to be addressed within the permit renewal is the CSO issue in Laurel. DNREC has been in discussion with Region 3 on the best method of dealing with the CSO in regards to the NPDES permit renewal. This may</p>   |



Delaware's Restore Clean Water Action Items

| Target Date                         | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable                                    | Lead Agency                   | Comments/Status Updates  |
|-------------------------------------|---|--|-------------------------------|--|
|                                     |   |  |                               | entail the need for Laurel to develop a Long-term Control Plan until CSO separation can be achieved. Due to other priority permits and staffing resources, the CSO issue has not yet been addressed in the draft permit which has delayed public notice. DNREC anticipates public notice and final permit renewal to occur in early summer 2016. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i>   |
| <del>7/2014</del><br>2016           | SWDS remains committed to reducing the NPDES permitting backlog in Delaware (Section 5.4) | New Staff                                      | DNREC, SWDS                   | <p><del>The SWDS will be hiring a part time seasonal engineer in the 3rd quarter of CY2014 to assist with writing and reviewing permits in order to address the permit backlog.</del></p> <p>SWDS hired a part time contractual engineer September 2014 to assist with writing and reviewing permits in order to address the permit backlog. This resulted in two additional draft NPDES permits from September through December 2014 with finalization of those permits to follow shortly.</p> <p>SWDS hired a part-time contractual engineer late May 2015 through mid-July 2015 to work on drafting the Laurel WWTP permit renewal. The NPDES permit renewal for the Laurel WWTP was drafted prior to the contractual engineer leaving for medical reasons; however, DNREC is working with Laurel and EPA Region 3 to determine best path forward for addressing Laurel's CSO separation project in the permit renewal prior to going to public notice.</p> <p>DNREC-SWDS has made significant progress on NPDES permit backlog reduction over the last two years. The part-time contractual engineer hired via CBRAP funding was able to draft three (3) NPDES permit renewals during his employment with SWDS. One of the three has been signed effective and is no longer contributing to Delaware's backlog. The other two will go to public notice soon. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| Agriculture                         |   |  |                               |  |
| <del>12/31/2015</del><br>12/31/2016 | Education and Outreach Cost-Share Policy (Section 9.3.6)                                  | Installation of agricultural BMPs at 2 schools | Sussex Conservation Districts | The Sussex Conservation District implemented a cost-share policy for school districts, FFA programs, 4-H programs, etc. to assist with implementation of water quality BMPs. <b>In 2014, 7 BMPs were installed at Woodbridge High School's FFA Farm. The School completed their roof runoff management for their agricultural barn, installed a pollinator meadow, 2 rain</b>  |

## Delaware's Restore Clean Water Action Items

| Target Date   | Milestone<br>(Phase 2 WIP Section Reference)                   | Deliverable   | Lead Agency                  | Comments/Status Updates  |
|---|--|---|------------------------------|--|
|   |  |   |                              | gardens, manure shed, tree planting, and vegetated swale. In 2016, additional BMPs to be installed at Sussex Technical High School's. Sussex Conservation District anticipates other school districts or Ag education programs may take advantage of these funds in FY 16 and FY 17. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i>   |
| <del>7/1/2014 &amp; 7/1/2015</del><br>7/1/2015 & 7/1/2016 | Seek Cost-Share Funding from Alternative Sources (Section 9.7) | Procurement of Funds to close BMP implementation gap of 1.5 M | Sussex Conservation District | <p>The District will seek alternative funding sources to assist with implementation of water quality BMPs, specifically cover crops. The Districts will also seek alternative practices that are proven to improve water quality and will provide cost-share assistance if funding is available. Such practices include but are not limited to denitrifying bioreactors and soil health management practices. In 2016, SCD will apply for NFWF funding to assist beginning farmers with the implementation of water quality BMPs such as manure structures, composters, freezers, etc.</p> <p>SCD received approval of their RCPP proposal for bank stabilization on tax ditches. The RCPP funding will assist with implementing approximately 400 linear feet of bank stabilization utilizing green technology every year for five years. Along with the bank stabilization, SCD plans to install at least one denitrifying bioreactor in the watershed during the life of the grant.</p> <p>SCD, as part of the Delaware Association of Conservation Districts, has requested additional cost-share funds from the state legislature to assist with cover crop and other soil health management practice implementation. SCD received additional funding this year from NRCS and Delaware Department of Agriculture for the implementation of cover crops in the Chesapeake Bay.</p> |
| 8/1/2014 & 8/1/2015                                       | Agriculture Conservation Plans for Poultry Construction        | 10 more plans for 2014 (30-40 Houses)                         | Kent Conservation District   | <p>The Kent Conservation District will continue to develop Standard Plans for the construction of Poultry Houses. The plan addresses sediment and erosion control and provides the landowner with a SWPP during construction activity. The District has consistently designed plans for approximately 10 property owners annually with a range of 30-40 Poultry Houses. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>To date Sussex Conservation District has developed conservation plans for <del>41</del> 74 agriculture</p>  |

**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b>             | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>  | <b>Deliverable</b>   | <b>Lead Agency</b>                   | <b>Comments/Status Updates</b>   |
|--------------------------------|---|--|--------------------------------------|--|
|                                |   |  |                                      | buildings, through <del>49-37</del> plans. The plans are designed to comply with EPA SWPPP Requirements. District staff consulted with agencies during the design, including DNREC Drainage Section and NRCS. Following plan approval, District staff informed the grower of plan requirements and provided them with weekly self-monitoring reports as required under the NPDES construction permit. During this time frame, we have also met with many site contractors to ensure their understanding of the Conservation Plan and State Regulations.  |
| 8/1/2014 & 8/1/2015 & 8/1/2016 | Agricultural Water Quality BMP Inspections as part of Verification Program (Section 9.3.6)  | 100 Structural Ag BMP inspections and all cover crop acres | Kent & Sussex Conservation Districts | <p>The Districts will inspect new structural Ag BMPs for compliance to ensure that the practice is properly used. All cover crop acres planted will be inspected to ensure planting and destruction, tracking planting dates, species, planting method, destruction dates, and destruction methods. Any non-cost shared practices will be verified using the Resources Improvement Practices Protocol. This project funded through Chesapeake Bay Implementation Grant.</p> <p>In 2015, the Kent Conservation District has inspected 26,831.49 acres of cover crop and completed 59 Structural Ag compliance inspections, excluding concrete pads, equipment and rentars. Inspections completed were 3 Dairy Waste Structures, 1 Fish Composter, 36 Manure Storage Structures and 19 Dead Bird Composters.</p> <p>In 2015, the Sussex Conservation District conducted 380 inspections of structural water quality BMPs in the watershed. This included 114 composters, 145 manure sheds, and 121 heavy use area protections. The District also inspected a total of 40,258 acres of cover crops of which 17,546 acres were inspected in the spring for destruction and 22,712 acres inspected in the fall to ensure the cover crops were planted and adhering to SCD's cost-share policy and guidelines.</p> |
| 12/31/2015                     | Animal feeding operations in Ches. Bay Watersheds to be covered by a Concentrated Animal Feeding Operation permit (Section 9.3.2) | 150 General CAFO permits;<br>OR 100 Individual Permits     | Delaware Dept. of Agriculture/DNREC  | <p>Identification of potential regulated community complete. <del>Permit process will begin when CAFO permit templates are approved by DNREC &amp; EPA. DNREC is now considering using a general permit.</del> DNREC is now moving toward using a general permit. The first general permit in development would cover medium and large non-land applying poultry operations. A draft has been reviewed by EPA, and provided to select members of the Nutrient Management Commission for review. Permit process will begin when this general permit is approved by DNREC, DDA &amp; EPA. Staffing funded through Chesapeake Bay Regulatory</p>  |

Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable  | Lead Agency  | Comments/Status Updates   |
|-------------|---|--|--|---|
|             |   |  |  | <p>and Accountability Grant Program.</p> <p>DNREC has an EPA approved CAFO NPDES General Permit for Large and Medium poultry farms that do not have any crop production and do not land apply manure. This General Permit was approved by EPA on 4/29/15. The permit was public noticed on 10/28/15, with a 30 day public comment period. A public hearing administered jointly by DNREC and DDA concerning the draft General Permit was held on 12/3/15. Currently, DNREC and DDA are working on a Technical Response Memorandum (TRM) to address written and oral comments concerning the draft permit. As of 12/8/15, 122 farms have submitted a Notice of Intent (NOI) for coverage under this General Permit. DNREC and DDA will be working to address all comments, finalize the issuance of the permit to the State of Delaware, and begin the process of covering farms under the permit. Staffing funded through Chesapeake Bay Regulatory and Accountability Grant Program. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| 12/31/2014  | Develop a method to track and report Crop Residue Management and Tillage (Section 9.6.1.5) – <b>Cropland Roadside Transect Survey</b> | Tracking tool; Acres of conservation tillage for progress submission | DNREC, UD, Delaware Dept. of Agriculture, Districts, NRCS, FSA, CBPO | <p>Delaware will meet with Agriculture Partners to discuss methods of tracking and reporting tillage. Delaware will begin transect survey in June 2014. New acres will be reported in the progress submission. This project funded through Chesapeake Bay Implementation Grant.</p> <p><b>Beginning on June 2, members of the Watershed Assessment and Management Section conducted a week-long cropland roadside transect survey for obtaining 2015 tillage and crop residue data across the state. A team was assembled with members from DNREC, University of Delaware Cooperative Extension, Delaware Department of Agriculture, Natural Resources Conservation Service, Farm Service Agency, and County Conservation Districts. The group also worked with DTI to develop a mobile application utilizing ArcGIS Collector to allow for an unparalleled method of data collection unique to Delaware. The purpose of the survey is threefold: (1) to provide information that can be used by individual soil and water conservation districts and others in establishing priorities for educational or other programs, (2) to evaluate progress achieved in reaching county, statewide, and watershed wide goals, and (3) to provide accurate data on the adoption of conservation tillage systems by crop. Tillage methods collected include high residue minimum soil disturbance, no-till,</b></p> |

## Delaware's Restore Clean Water Action Items

| Target Date                   | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable   | Lead Agency                              | Comments/Status Updates   |
|-------------------------------|--|---|--|---|
|                               |  |   |  | <p>reduced-till, and conventional tillage. Cover crop data were also collected. Data collected will be provided to the Conservation Technology Information Center's National Crop Residue Management Survey, and to the Chesapeake Bay Program for progress reporting and Chesapeake Bay Model calibration.</p> <p>In December 2015, the cover crop transect survey was conducted to capture non cost shared cover crops. Identification of cover crop species, planting method, and approximate planting time frame was documented. This survey serves as the first run of a three part annual survey that will capture cover crops, tillage and planting methods, double cropping and residue cover across the state.</p> |
| 2014-2015                     | Lead efforts to correctly determine the quantity and nutrient content of Delmarva poultry litter (Section 9.6.4.10)  | Participation in Poultry Litter Subcommittee; possible future load reductions in CBWSM; PLS Report. | DNREC, DDA, UD                           | <p>UD and DDA assisting with the development of industry data through partnership.</p> <p>Delaware Partners continue to serve on the Poultry Litter Subcommittee Expert Panel. The Subcommittee has drafted a report for possible include in Phase 6.0 of the Model.</p> <p>DDA Nutrient Management staff continue to promote outreach efforts in collecting poultry manure samples at farm inspections, Ag Week, and through Annual Reporting. This effort is building the data set that the DDA's lab maintains for actual analysis results. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| 2014                          | Assess Nutrient Management Tiers for Delaware (Section 9.6.1.7)  | Evaluate cropland acres for new nutrient management tier definitions                                | DNREC, DDA                               | <p>Upon decision of the CBPO's approval Nutrient Management Expert Panel report, DDA will re-evaluate all tiers of nutrient management and inspect farms for compliance.</p> <p>Delaware Partners continue to serve on the Nutrient Application Management Expert Panel. The current panel will focus on 5.3.2 recommendations work toward inclusion of new efficiencies in Phase 5.3.2 of the Model. Delaware is prepared to report Nutrient Management Acres as Tier II with a Crosswalk document as part of the arranged acceptance of the Phase 5.3.2 NM Report revised in 2015.</p>  |
| <del>12/31/2015</del><br>2017 | DNREC will commission a pilot watershed assessment to help characterize and assess the status of a small, agriculturally impaired subwatershed (Section 9.6) | Assessment Report   | DNREC, DDA, USDA, Conservation Districts | <p>This assessment will guide implementation efforts of AG BMPs to reduce nitrogen and phosphorus loadings. Assessments will be conducted on every farm in the subwatershed. Emphasis will be placed on crop residue management, AWMS, cover crops, buffers, and nutrient management planning. Any non-cost shared practices identified will be assessed using the Resources Improvement Practices Protocol. Results of the pilot assessment will</p>   |

**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b>              | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>   | <b>Deliverable</b>  | <b>Lead Agency</b>           | <b>Comments/Status Updates</b>  |
|---------------------------------|--|---|------------------------------|---|
|                                 |  |   |                              | <p>assess the efficacy of existing agricultural programs. This project funded through Chesapeake Bay Implementation <b>Signatory</b> Grant. <b>The Signatory Grant was awarded in December 2014. DNREC will begin to work within Bucks Branch in 2015.</b></p> <p><i>The program was delayed due to the development of a BMP verification plan and will be resurrected by 2018. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| <del>12/1/2015</del><br>12/2016 | Develop a 1619 Data Sharing Agreement  | Agreement   | DNREC, NRCS                  | <p>Delaware will work with NRCS to develop a 1619 data sharing agreement between the two agencies to submit NRCS cost shared agricultural practices for inclusion in CBWSM. This project funded through Chesapeake Bay Implementation Grant. <b>DNREC, NRCS, FSA, and Devereux Consulting met on 12/2/2014 to discuss the development of a data sharing agreement. Future discussions scheduled in first quarter 2015.</b></p> <p><i>This task will be completed in 2016. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| FY 2015-17                      | Sussex Conservation District submitted NRCS CIG Grant Proposal (Section 9.6)/ <b>NRCS Regional Conservation Partnership Program (RCPP)</b> | Air Seeder Purchase<br>5 Soil Health Workshops;<br>Increase in cover crop participation | Sussex Conservation District | <p><i>Promoting Soil Health through Outreach, Education, and the Introduction of the New Technology – Air Seeder for Planting Cover Crops – FY 2015, FY 2016, FY 2017</i></p> <p>The Sussex Conservation District has applied for a NRCS Conservation Innovation Grant to promote soil health through four workshops, field days, demonstrations utilizing the air seeder which allows the farmer to aerial seed a cover crop in a standing corn or soybean crop which will improve the stand of crop planted because of increased seed to soil contact. This will maximize uptake of nutrients and increase residuals in the soil. Approval of this grant will increase participation by farmers in implementing cover crops, no-tillage, and crop rotation. The increased acres will be reported to DNREC and the Chesapeake Bay Program. <b>Sussex Conservation District was not awarded the CIG Grant. The grant proposal was then submitted to NRCS's Regional Conservation Partnership Program by DNREC. The Regional Conservation Partnership Program is a new Farm Bill program. The pre-proposal was submitted on July 14, 2014 and was selected for full proposal. A full proposal was submitted for the Chesapeake Bay Critical Conservation Area with Maryland and Virginia – each state focusing on BMPs addressed in their respective WIPs. This multi-state proposal was approved by NRCS on January 14, 2015.</b></p> |



**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b> | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>   | <b>Deliverable</b>   | <b>Lead Agency</b>                     | <b>Comments/Status Updates</b>   |
|--------------------|--|--|--|--|
|                    |  |  |  | The Sussex Conservation District purchased an air seeder to establish cover crops earlier by planting into standing cash crops. Planting began the end of July and ran into October to get additional early acres in corn, sorghum, and on soybean ground that normally may not have gotten cover crops planted. The air seeder planted over 4,000 acres countywide with 1,638.5 of those acres planted in the Chesapeake Bay Watershed. There were 22,712 cover crop acres planted in the watershed which is an increase of 33.8% over 2014. This increase can be at least partially attributed to the air seeder and the soil health workshops. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i>  |
| FY 2014-2015       | Tax Ditch Bank Stabilization Project in the Bucks Branch Watershed as part of NRCS National Water Quality Initiative | Complete about 450 linear feet of bioengineered bank stabilization                 | Sussex Conservation District/NRCS      | The Sussex Conservation District stabilized/restored around 450 linear feet of tax ditch bank in the Bucks Branch Watershed. This watershed is identified by NRCS as part of the National Water Quality Initiative. The project incorporated green technology and installed coconut coir logs for stabilization and live stakes and seeding to help stabilize the newly reconstructed ditch bank. This project was funded by the NRCS National Water Quality Initiative.   |
| FY2014             | Conduct Soil Health Workshops in the Chesapeake Bay Watershed (Section 9.6)  | <del>3</del> 5 workshops: <del>2</del> 4 in Sussex, 1 in Kent<br><br>SCD: Complete | Kent and Sussex Conservation Districts | Kent and Sussex Conservation Districts will hold <del>three</del> five workshops for farmers to educate them on soil health techniques such as no-till, crop rotations, and planting cover crops. In order to change the mindset of the farming community, these proven technologies need to be shared with farmers and show them by using these soil health management practices will improve soil health, increase crop yields, and the bottom line. This project funded through Chesapeake Bay Implementation Grant.<br><br>Sussex Conservation District held their first workshop in December 2014. The workshop was a success with 81 people attending. The second workshop will be held during Delaware "Ag Week" in January 2015 and a field day is planned for March 2015. This project is funded through the Chesapeake Bay Implementation Grant. Kent Conservation District will hold their workshop in 2015.<br><br>The Sussex Conservation District held six workshops/field days in 2015. In January 2015, SCD held a workshop in conjunction with "Ag Week" which was attended by 122 people. Another workshop/field day was held in March 2015 and was attended by 52 people. In July two field day/training sessions were held for farmers interested in using the air seeder to |



## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)                    | Deliverable  | Lead Agency | Comments/Status Updates  |
|-------------|---|--|-------------|--|
|             |   |  |             | plant cover crops into standing crops. During the two days, approximately 36 farmers attended. In September 2015 two field days were held (one in the watershed) to demonstrate the air seeder. There were approximately 28 people in attendance at the field day in the watershed. In early December 2015 a meeting was held with the farmers that participated in the air seeder program in an effort to improve the program and increase acreage. There were 30 people in attendance which provided good feedback. SCD anticipates an increase in cover crop acres planted with the air seeder to increase to about 8,000 acres. At this meeting SCD presented information to the farmers on the outcomes of the program. Also in December of 2015, a Soil Health 101 workshop was held with approximately 45 people in attendance. Overall, SCD reached over 300 people through soil health workshops and field days. More workshops are planned for 2016. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i> |
| 12/2014     | Increase Manure Transport (Section 9.6.1.14)                    | <p>47,515 tons outside of CBWS; 13,402 tons within CBWS</p> <p>FY 2015: CBWS 2015 28,704 tons cost shared within CB. 31458 tons cost shared outside CB</p> | DDA         | <p>Portions of this project may be funded through the Chesapeake Bay Implementation Grant Funds.</p> <p>Implementation has increased since 2013.</p> <p>Manure transport rates are currently \$0.16 per ton mile. Total tons of manure moved to sites or alternative uses with low/non-existent P levels was 60,162. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| 12/2015     | Update Delaware's cropland irrigation records (Section 9.6.3.2) | Acres of cropland irrigation management for progress submission  | DNREC       | <p>Currently, cropland irrigation is an Interim BMP in the Model. DNREC is seeking a refined irrigation dataset to capture large pivot systems and small drip tape systems. The information gathered will aid Delaware in seeking approval of this BMP and receiving credit in the future. This project funded through Chesapeake Bay Implementation Grant.</p> <p>This project will commence in second quarter 2015.</p>  |

## Delaware's Restore Clean Water Action Items

| Target Date                | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable   | Lead Agency                         | Comments/Status Updates   |
|----------------------------|---|---|-------------------------------------|---|
|                            |   |   |                                     | This project has been tabled until the cropland irrigation BMP is approved by the Chesapeake Bay Program. Once approved, DNREC will use the methodology in the NPS BMP QAPP in Appendix B:<br><a href="http://www.dnrec.delaware.gov/swc/wa/Documents/Chesapeake%20BMP%20Verification/DE_NPS_BMP_QAPP_2015_NOV16.pdf">http://www.dnrec.delaware.gov/swc/wa/Documents/Chesapeake%20BMP%20Verification/DE_NPS_BMP_QAPP_2015_NOV16.pdf</a> .   |
| 12/2014                    | Update historical water control structure data (Section 9.6.1.10)   | Acres of Water Control Structures for progress submission | DNREC, NRCS, Conservation Districts | As part of the state's approach to cleaning up historical BMP data for the 2017 Phase 6 Watershed Model calibration. Water control structures not previously reported will be added to historical data. This project funded through Chesapeake Bay Implementation Grant.<br><br>Historical water control structure data is complete.<br><br>SCD provided historical water quality BMP data dating back to 1985 for inclusion in the 2017 Phase 6 Watershed Model.   |
| 06/2015                    | Develop and implement a tracking and reporting system for agricultural non-cost shared BMPs (Section 9.9)               | Database developed  | DNREC, DDA, Conservation Districts  | Data collection efforts will be undertaken that utilize conservation district technicians on a site-by-site approach once verification protocols and resource improvement determinations have been agreed upon by the CBP. This project funded through Chesapeake Bay Implementation Signatory Grant. The Signatory Grant was awarded in December 2014. DNREC and the Districts will work together to develop the database in 2015.<br><br>DDA has built into their test database a system for tracking BMPs reported in Nutrient Management Plans, and verification of BMPs through inspection reports.  |
| <del>12/2015</del><br>2016 | Research conducted by UD in conjunction with USGS and DNREC on the effectiveness of irrigation on Ag BMPs (Section 9.6) | Research Phase of Project Completed; Final Report (2016)  | UD, DNREC, USGS                     | This research evaluates irrigation as a BMP. Knowledge gained from this research will be presented to AGWG and pending expert panel evaluation. Data Collection completed Fall 2015. Final report and publication to be prepared in 2016. This project funded through Chesapeake Bay Implementation Grant. Data collected in 2014 and preliminary statistics were completed. Data will be continually be collected and analyzed in 2015.<br><br>Preliminary statistics were completed to estimate the effect of irrigation and N management treatments on yield; nutrient use efficiency calculations were started. Over the same time period, the USGS team installed a stream gauge and sensor and several wells on both the irrigated and dry-land fields in Bucks Branch and USGS collected samples for N analyses. |

## Delaware's Restore Clean Water Action Items

| Target Date                | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable  | Lead Agency                          | Comments/Status Updates   |
|----------------------------|---|--|--------------------------------------|---|
|                            |   |  |                                      | Water samples were analyzed for N-isotopes, nutrients, and major ions. Statistical analysis is on-going. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i>  |
| <del>12/2015</del><br>2016 | Evaluate the effects tax ditch dip out practices and impacts on water quality (Section 9.6) | Research Phase of Project Completed; Final Report (2016) | UD, DNREC                            | <p>Recommendations will guide future management practices to improve environmental benefits. Last samples collected December 2015. Preparing and submitting final report to DNREC by June 2016. Pending results of this investigation, the final report may be presented to the CBPO for consideration as a BMP in the CBWSM. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>The goals for this research project are to quantify the differences in nutrient transport from dipped and un-dipped ditches and identify best management practices for ditch management that result in the least amount of nutrient transport via ditches. In 2014, Baseflow and stormflow data were collected from selected ditch sites. Water quality monitors were deployed and regularly assessed. In 2015, UD will continue to perform laboratory work.</p> <p>Initial soil characterizations on ditch sediment cores were completed and water samples were taken to the DNREC Environmental Laboratory for analysis. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| 2014-2015                  | Participation on the Chesapeake Riparian Forest Buffer Initiative (Section 9.6)             | State Task Force Meeting (September 2014); White paper   | DNREC, DDA, NRCS, FSA                | <p>The task force meeting will identify barriers to progress and local opportunities to accelerate riparian forest buffer adoption and address a range of issues. Invited groups will include relevant federal and state agency personnel and key interest and partner groups. As a result of the meeting a white paper will be created to determine the actions needed to accelerate RFB adoption. <del>This project to be funded through Chesapeake Bay Implementation Grant.</del></p> <p>NRCS has moved forward with this milestone and convened a meeting in August 2014. A draft report for the State was circulated in November. Final report forthcoming in 2015.</p> <p>The report was finalized and a strategic plan was developed.</p>   |
| 2014                       | Examine potential for non-cost shared cover crop transect survey (Section 9.6)              | Tracking Tool; Acres of cover crop for progress          | DNREC, Conservation Districts, NRCS, | <p>Delaware will assess the efficacy of a transect survey to cover crop data in the Chesapeake Bay watershed. This project funded through Chesapeake Bay Implementation Grant.</p> <p>In December 2014, the cropland transect survey was expanded (as a pilot project) to capture</p>   |

Delaware's Restore Clean Water Action Items

| Target Date                              | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable                                     | Lead Agency                         | Comments/Status Updates   |
|--|---|---|-------------------------------------|---|
|  |   | submission                                      | FSA                                 | <p>non-cost shared cover crops. This survey serves as the first run of a three part annual survey that will capture cover crops, tillage and planting methods, double cropping and residue cover across the state.</p> <p>In December 2015, the cover crop transect survey was conducted again due to the success of the December 2014 pilot project. This survey is expected to continue on an annual basis. Acreages of cover crops derived from the statewide transect survey are now be able to be reported based on the methodology approved by the Agricultural Workgroup at the September 2015 meeting.</p>  |
| 2015<br>2016                             | Work with AG partners to pilot a woodchip bioreactor and denitrification wall (Section 9.6) | Implementation of BMP                           | NRCS, Conservation Districts        | Sussex Conservation District will identify a project location in 2015 2016. This project to be funded with Chesapeake Bay Implementation Signatory Funds. This milestone has been moved to Delaware's 2017 draft milestones.  |
| 12/2014<br><del>12/2015</del><br>12/2016 | Development of online reporting tool (Section 9.9)  | Website;<br>Trainings;<br>NEIEN data submission | DNREC, Watershed Assessment Section | <p>DNREC has worked with Tetra Tech Inc. to develop an online database for the reporting and tracking of NPS BMPs in DE, including agricultural practices. This tool will be finalized in early 2014 and will be utilized for 2014 National Environmental Information Exchange Network (NEIEN) submissions. Individuals responsible for reporting practices from their organizations will be given login credentials. Training, hosted by Tetra Tech, was held April 29, 2014. Future trainings, conducted by DNREC, will be held in August and September 2014. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program. DNREC's Information and Technology staff were consolidated in 2014 and, as a result, the online reporting tool was not finalized. Therefore, no trainings were conducted and users were unable to upload data for 2014 progress. CBRAP funds were used to contract with Tetra Tech for 2014 progress submission and input BMP data into the online reporting tool while hosted from their site. DNREC will work with Delaware Department of Technical and Information to finalize the database in 2015.</p> <p>The database has not been finalized because of the backlog of projects with the Delaware's Department of Technology and Information. DNREC will continue to utilize the Tetra Tech contract for historical and progress submissions.</p> |

Delaware’s Restore Clean Water Action Items

| Target Date        | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable | Lead Agency  | Comments/Status Updates  |
|--------------------|--|-------------|--|--|
| Planning & Landuse |  |             |  |  |
| 6/2014             | Master Plans and/or validate build out scenarios for Bridgeville Sewer District; (Section 8.2.1) | 1 Plan      | University of Delaware (UD)/Office of State Planning Coordination (OSPC) | <p>The Wastewater Infrastructure Study needed to complete the Master Plan/build out scenario was completed in October 2013. The infrastructure plan also impacts the build out scenario approved by the Town in early 2013. A Draft Master Plan has been written and presented to the communities for review and public comment. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>The Master Plan process generated a detailed scenario for future growth in the Bridgeville-Greenwood area. Implementation of the Plan will yield many sustainable benefits for both towns and their citizens, water quality and the natural environment, farmers and agribusinesses, and the taxpayers of Delaware. UD staff appeared before the Bridgeville Planning &amp; Zoning Commission, the Bridgeville Town Commission and the Greenwood Town Commission to request consideration of the Master Plan. The Town of Greenwood adopted “A Master Plan for Bridgeville and Greenwood- Sustainable Growth in the Nanticoke Watershed” by resolution during a Town Commission meeting in August 2014. The Town of Bridgeville followed by also adopting the Plan at an October 2014 meeting of the Commissioners of Bridgeville. By approving this document, the towns were also able to satisfy a state requirement to complete a 5-year review of their Comprehensive Plans. See following link:<br/><a href="http://www.scc.udel.edu/bridgeville-greenwood-master-plan">http://www.scc.udel.edu/bridgeville-greenwood-master-plan</a></p> <p>The Town of Bridgeville contracted for the development of a Source Water Protection Ordinance. Counties and municipalities with populations of 2,000 persons or more are required to adopt as part of the update and implementation of their Comprehensive Land Use Plans, the overlay maps delineating, as critical areas, source water assessment, wellhead protection and excellent ground-water recharge potential areas. Bridgeville had exceeded the 2,000 person threshold according to the most recent census. The Bridgeville Planning and Zoning Commission approved for recommendation the draft Source Water Protection Ordinance. The Bridgeville Town Commission deferred action on the proposed ordinance until the Department could reexamine the wellhead protection delineation map, which</p> |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable   | Lead Agency                  | Comments/Status Updates   |
|-------------|--|---|------------------------------|---|
|             |  |   |                              | impacted the commercially zoned properties identified in the Master Plan. A revision of the map was completed and it is anticipated that the proposed ordinance will be reconsidered by the town commission in early-2016.  |
| 12/2014     | 2 <sup>nd</sup> Annual Workshop for Local Governments addressing Water Resources and Green Infrastructure Planning | Workshop  | DNREC                        | <p>A second annual workshop is being planned for local governments to focus on topics such as integrated planning; MS4s; and financing the implementation of green infrastructure improvements as well as lessons learned from other Chesapeake Bay communities. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>A local government workshop was held on December 8<sup>th</sup> in the Town of Laurel with DNREC and other State and Local agencies focused on understanding sustainable redevelopment opportunities along Broad Creek as a case study. Approximately 40 people were in attendance. An additional workshop will be scheduled in 2015 and a tour of other community projects will be scheduled for local decision makers focused on lessons learned and local experiences implementing and managing green infrastructure capital improvement projects.</p> <p>COMPLETE. 11/5/2015. DNREC, Sussex Conservation District and Delaware Section of the American Water Resources Association (DEAWRA) cosponsored a workshop for local governments focused on MS4 regulations and draft permit. Presentations were offered by the Environmental Finance Center, EPA, DNREC, and others regarding minimum control measures required in a SWPPP. A keynote presentation from the City of Lancaster was also offered. The workshop drew over 120 attendees, including representatives from most of our Chesapeake Bay communities that will be required to obtain a permit. Funding for this activity was provided in part by the Chesapeake Bay Regulatory and Accountability Grant. The presentations can be found here: <a href="https://deawra.wildapricot.org/page-1737418">https://deawra.wildapricot.org/page-1737418</a></p> |
| 6/2016      | NFWF Chesapeake Bay Small Watershed Grant – Building Local Government Capacity in Sussex County, DE                | Provide technical assistance to the nine municipalities located all or in part of the | Sussex Conservation District | The Sussex Conservation District will, as part of Delaware's Phase II watershed implementation plan (WIP) will increase awareness of new requirements and regulations, identify potential green infrastructure projects and funding sources, coordinate three project tours with the municipalities, and explore and facilitate implementation of innovative conservation concepts and incentives for businesses. Project outcomes include increased  |

Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)                            | Deliverable  | Lead Agency  | Comments/Status Updates   |
|-------------|---|--|--|---|
|             |   | Chesapeake Bay Watershed                                 |  | <p>capacity of the municipalities to identify and implement green infrastructure projects, a 20% increase in green infrastructure best management practices (BMPs) over the next 10 years. This project is funded through a National Fish and Wildlife Foundation Chesapeake Bay Watershed Grant.</p> <p>The Sussex Conservation District met with the Chesapeake municipalities to inform them of the project and the technical assistance that was available to them. In communicating successes and lessons learned, SCD has established a monthly email newsletter with relevant articles and upcoming events and funding opportunities. Five of these newsletters have been sent out to date, and the District continues to evaluate the most effective and accessible methods of knowledge transfer. SCD has worked with the towns of Seaford, Laurel, Georgetown, Bridgeville and Greenwood to identify and prioritize potential green infrastructure projects, as well as some of the barriers to implementation. SCD has also identified and is pursuing a tracking and reporting tool that may be used for these and other projects. SCD provided assistance to apply for grant funding for implementation of several green infrastructure projects, and will work with the municipalities over the next year to see those projects through completion. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| 5/2015      | Validate build out scenarios for Laurel Sewer District; (Section 8.2.1) | 1 build out scenario maps approved by the Town of Laurel | University of Delaware (UD) Sustainable Coastal Communities Initiative | <p>UD has met with and is finalizing a build out scenario map for the Town of Laurel. A plan will be developed to address and account for future growth in the community based on the selected build out scenario. The plan will also address, where possible, the redevelopment design plans or concepts (see below) along Broad Creek, implementation of the Green Infrastructure Improvements along 6<sup>th</sup> Street and those needed along the Rossakatum Branch. This plan may be impacted by the Bethel Wastewater Study, as treatment by Laurel's Wastewater Treatment Plant is one treatment option for the Town of Bethel. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>Land use scenarios for the Town of Laurel were reconsidered and revised to better reflect more realistic growth projections. The draft mini-watershed implementation plan- <i>From Broad Creek to the Chesapeake: Guidance for growth in Laurel that protects our water</i></p>   |



## Delaware's Restore Clean Water Action Items

| Target Date                 | Milestone<br>(Phase 2 WIP Section Reference)                          | Deliverable | Lead Agency  | Comments/Status Updates  |
|-----------------------------|---|-------------|--|--|
|                             |   |             |  | <i>quality-</i> has been completed and is currently under editorial review   |
| <del>5/2015</del><br>6/2016 | Laurel Waterfront Redevelopment Plan for Broad Creek (Section 8.2.11) | Plan        | University of Delaware<br>Landscape Design Program | <p>Develop a waterfront redevelopment plan incorporating green infrastructure and sustainable design principals along the Broad Creek in Laurel from Delaware Avenue to Roger G Fisher Park. The plan and project will be used as a case study to engage students enrolled in an undergraduate design course beginning to learn about master planning and planning processes. This project funded by University of Delaware Sea Grant.</p> <p>University of Delaware staff in collaboration with the Laurel Redevelopment Corporation (LRC) and Dr. Jules Bruck, Associate Professor of Landscape Design with the University of Delaware (UD), explored a comprehensive waterfront redevelopment plan for the waterfront portion of Laurel, DE. Activities included numerous site visits, consultation with LRC leadership, and presentations with planning representatives from a variety of state agencies as well as a design charrette with students from Laurel who are attending UD. The project also involved junior design students enrolled in Dr. Bruck's PLSC 301- CAD for Landscape Designers course offered by the Department of Plant &amp; Soils Sciences at the University of Delaware. Dr. Bruck and co-P.I.'s, including DSG, completed a report called Broad Creek Greenway and Waterfront Redevelopment, which was presented to the Board of Directors of the LRC at a special meeting in September 2014. LRC enthusiastically accepted the conceptual site design and recommendations. Subsequently, UD helped to facilitate a special daylong workshop with the Town Commission and other local officials to discuss implementation and funding strategies, including a project timeline.</p> <p>UD received two DNREC grants to support the implementation of the Laurel/Broad Creek Waterfront Redevelopment Plan: 1) a Coastal Management Assistance grant to support the Phase I environmental assessment and geotechnical/feasibility study, and 2) a Surface Water Planning Grant to fund the development of stormwater management plans and construction drawings for two of the affected properties. Both grants were secured using matching legislative funds. Final reports for these studies are anticipated by 1 MAY 2016. In addition, a conceptual design for the nature-based play area was completed and presented to community stakeholders and the Laurel Town Commission for consideration.</p> <p>A "kick-off" meeting with the engineering consultants for the surface water planning study</p> |

**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b>                                 | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>  | <b>Deliverable</b>                                       | <b>Lead Agency</b>   | <b>Comments/Status Updates</b>   |
|--|---|--|--|--|
|  |   |  |  | for The Ramble waterfront redevelopment project was held and the contract was executed. Production of the construction drawings for the green infrastructure/stormwater features for two of the design components is expected to be completed by 1 JUN 2016. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i>   |
| <del>12/2015</del><br>2016                         | Implementation of Green Infrastructure improvements along 6 <sup>th</sup> Street and the Rossakatum Branch in Laurel (Section 8.2.11) | Implementation of Green Infrastructure Improvements      | Town of Laurel and George, Miles and Burh, Inc.                        | <p>Plan and Cost assessment for 6<sup>th</sup> Street is complete. Cost to implement Green Infrastructure improvements to 6<sup>th</sup> Street in Laurel is over \$800,000. The town is seeking the funding needed to implement the project and to complete the assessment of the Rossakatum Branch which was not included in the initial study. Planning and engineering funded through NFWF.</p> <p><b>Plan completed; seeking funding.</b></p> <p>The Town of Laurel has applied for and received approval for a loan through the Delaware's Clean Water State Revolving Fund to implement this project. Construction is expected to occur starting in or after September 2016. Cost of the project is expected to be up to \$1.5 million. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| <del>12/2014</del><br><del>12/2015</del><br>6/2016 | Validate build out scenarios Bethel (Section 8.2.1)   | 1 build out scenario map approved by the Town and Bethel | University of Delaware (UD) Sustainable Coastal Communities Initiative | <p>A Wastewater Study has kicked off in Bethel which will identify potential future growth areas. Build out scenarios will be developed in conjunction with the wastewater study. Maps and a Plan will be developed following the completion of the study. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p><b>The draft results of the Wastewater Study were presented to the Town of Bethel in October 2014. Build out scenarios and the public engagement process for development of a buildout map will take place in the first half of 2015, to be completed by the end of 2015.</b></p> <p>The layout and graphic design for the mini-WIP for Laurel/Bethel was initiated with the contractor and the draft publication completed in 12/2015. Final publication of the Laurel-Bethel mini-WIP will be completed and approval from both town expected by June 2016. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| 8/2014   | Wastewater Study for the Town of Bethel (Section 8.2.4)   | Study  | Sussex County and DNREC  | Conduct a wastewater study for the town of Bethel to evaluate 4 options for wastewater treatment including treatment provided by the Town of Laurel or the City of Seaford; a local  |

Delaware's Restore Clean Water Action Items

| Target Date       | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable   | Lead Agency                                     | Comments/Status Updates  |
|-------------------|--|---|---|--|
|                   |  |   |   | <p>plant; or upgrades to alternative on-site septic systems. The community lies within 1000 feet of tidal Broad Creek and will be impacted by the revised On-Site Wastewater Regulations scheduled to go into effect in 2014. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>The Wastewater Study has been drafted and results presented to the town of Bethel. Results will be presented to Sussex County Council in the first quarter of 2015 and the report finalized. The draft report found extending sewer to the community or building a stand alone facility for the community is not currently feasible due to cost.</p> <p>COMPLETED – No further action taken by Sussex County as the results of the study indicated sewer expansion to the area was not economically feasible. DNREC will continue to work with the community to identify options and opportunities to upgrade existing on site wastewater treatment systems to advanced treatment systems to improve nutrient reductions in the Broad Creek.</p>  |
| 12/2015<br>6/2016 | Implementation of Green Infrastructure Improvement Plan and design to address stormwater in Bethel (Section 8.2.4) | Implementation of Green Infrastructure Improvements | Town of Bethel and George, Miles and Burh, Inc. | <p>The Town of Bethel, along with Laurel, received technical assistance funding from the National Fish and Wildlife Foundation to develop design plans and engineering for Green Infrastructure Improvements with in the community. The design plans and cost assessment are complete. The total cost to implement the green infrastructure project is approximately \$460,000. DNREC, Bethel and GMB are working together to identify potential funding sources to implement the plan. The town successfully submitted a grant proposal through the Chesapeake Bay Trust Green Streets Program for partial funding. They are also considering other funding sources through Clean Water State Revolving Fund and local sources.</p> <p>Phase I of the Bethel project is moving toward bidding. A total of \$234,732 of grant funding has been acquired as follows:<br/> Chesapeake Bay Trust Greet Streets - \$100,000 (Federal Funds)<br/> Community Water Quality Improvement Grant – \$66,732 (State Funds)<br/> Community Transportation Fund - \$68,000 (State Funds)</p> <p>A tentative schedule for bidding and construction has been established:</p> |

Delaware's Restore Clean Water Action Items

| Target Date                             | Milestone<br>(Phase 2 WIP Section Reference)                            | Deliverable  | Lead Agency  | Comments/Status Updates  |
|---|---|--|--|--|
|   |   |  |  | <p>Advertise for Bids – by Jan 18, 2015<br/> Pre-Bid Meeting – Feb 3, 2015<br/> Bid Opening – Feb 17, 2015<br/> Recommend Award –by February 24, 2015<br/> Council Award – March 3, 2015<br/> Pre-Construction Meeting – March 17, 2015<br/> Start Construction – by April 1, 2015<br/> Finish Construction – by June 15, 2015</p> <p>Phase I to include the following elements:</p> <ul style="list-style-type: none"> <li>• Intersection Main and Vine</li> <li>• Bioretention Areas along Main</li> <li>• Step Pool Conveyance System</li> <li>• Moore Street Rock Stabilization and Tree Box Filter</li> <li>• Traffic Island Bioretention</li> </ul> <p>The Town is still in process of getting easements signed however they have encountered difficulty with certain residents causing several redesigns which may affect the schedule if not resolved soon.</p> <p>Funding for the project has been obtained and the first phases of the project are being constructed. The project officially kicked off construction in September 2015. The project is expected to be completed in early 2016. Additional funding was provided by the Chesapeake Bay Implementation Grant through the Local Government pass through funds. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| <del>12/2014</del><br>06/2015<br>6/2016 | Validate build out scenarios for Seaford Sewer District (Section 8.2.1) | 2 build out scenario maps approved by the City of Seaford and the Town of Blades | University of Delaware (UD) Sustainable Coastal Communities Initiative | <p>An initial meeting was held in Spring 2013, however due to turnover follow up will occur in spring/summer 2014. The outcome of this buildout scenario is also dependent on the outcome of the Bethel Sewer Study, as Seaford is one treatment option being evaluated for the Town of Bethel. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>University of Delaware will Contact town officials in both municipalities and schedule an</p>   |

## Delaware's Restore Clean Water Action Items

| Target Date   | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable  | Lead Agency   | Comments/Status Updates  |
|---|--|--|---|--|
|   |  |  |   | <p>introductory meeting to establish a timeline for public engagement process for the development of a sub-regional master plan for these communities in early 2015.</p> <p>UD met with City of Seaford officials and initiated the development of a mini-Watershed Implementation Plan. The map overlays from the City's comprehensive plan were requested from the City's consulting engineer. These maps were determined to be of a format and quality that was not suitable for use with the University's land use model. New GIS maps/overlays are being created by the university's specialists. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |
| <del>4/2015</del><br><del>12/2015</del><br>12/2017  | Validate build-out scenarios for Delmar. (Section 8.2.1)   | 1 build out scenario map approved by the Town of Delmar                      | University of Delaware (UD) Sustainable Coastal Communities Initiative  | <p>Scheduled. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p><i>This project will be completed in the next milestone period. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |
| <del>12/2014</del><br><del>12/2015</del><br>12/2017 | Validate Build out scenarios for the Chesapeake Bay portion of Kent County (Section 8.2.1).                  | Build out scenario maps for Kent County, Harrington, Farmington, and Hartly. | DNREC, University of Delaware (UD) Sustainable Coastal Communities Initiative, Office of State Planning Coordination, Kent County       | <p>Scheduled to kick off in May 2014. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p><b>Project has been delayed until 2015.</b></p> <p><i>This project will be completed in the next milestone period. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| <del>12/2015</del><br>12/2017                       | Validate Build out scenarios for the unincorporated Chesapeake Bay portion of Sussex County (Section 8.2.1). | Build Out Map(s)   | DNREC, University of Delaware (UD) Sustainable Coastal Communities Initiative, Office of State Planning Coordination, and Sussex County | <p>Scheduled. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p><i>This project will be completed in the next milestone period. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>  |

## Delaware's Restore Clean Water Action Items

| Target Date                   | Milestone<br>(Phase 2 WIP Section Reference)   | Deliverable      | Lead Agency   | Comments/Status Updates   |
|-------------------------------|--|------------------|---|---|
| <del>12/2015</del><br>12/2017 | Validate Build out scenarios for the Chesapeake Bay portion of New Castle County and Middletown (Section 8.2.1).   | Build Out Map(s) | DNREC, University of Delaware (UD) Sustainable Coastal Communities Initiative, Office of State Planning Coordination, New Castle County and Middletown. | <p>Scheduled. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p><i>This project will be completed in the next milestone period. This milestone has been moved to Delaware's 2017 draft milestones.</i></p>   |
| 12/2015                       | Develop conservation and management plans for tax ditches systems to improve water quality management and identify opportunities for offsets. (Section 9.6.1 or 9.6.2) | Up to 18 Plans   | Sussex Conservation District  | <p>Sussex Conservation District in coordination with DNREC staff and local Tax Ditch Associations will develop up to 18 conservation/management plans for the tax ditch organizations to address water quality and maintenance concerns over the two year milestone period. The conservation plans will have recommendations for water quality BMPs that can be placed along/in tax ditches or on adjacent land. Plans may be used to identify potential offsets for new development. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p><b>Completed one conservation/maintenance plan for a tax ditch in the Chesapeake Bay Watershed. The Planner has also compiled information for the conservation/maintenance plans on 9 tax ditch systems and has received interest and requests from 3 more systems in the watershed.</b></p> <p><i>As of November 30, 2015 Sussex Conservation District staff have completed three conservation/maintenance plans for a tax ditch in the Chesapeake Bay Watershed. They have compiled information for the conservation/maintenance plans on 7 tax ditch systems and have received interest and requests from 3 more systems in the watershed, and are in the process of compiling information.</i></p> |

## Delaware's Restore Clean Water Action Items

| Target Date                           | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable                                      | Lead Agency                        | Comments/Status Updates   |
|---------------------------------------|---|--|------------------------------------|---|
| <del>12/2015</del><br>12/2017         | The Office of State Planning and Coordination, Sussex County and local municipalities will review approved development projects to determine which projects may be sun-set. This information will be provided to EPA's Chesapeake Bay Program to be considered in nutrient loading calculations for Delaware's TMDL allocation. | Land Use Data                                    | OSPC/Sussex County                 | Sussex County has approved a third extension to extend the life of proposed development projects for an additional three years – through 2016; however several large scale development projects have requested to revert back to Agriculture use, become permanently protected by easements, or have communicated they are not going to develop. We continue to work with our county and local partners to identify those projects and will provide updated information.<br><br>This project will be completed in the next milestone period.  |
| <b>Restoration &amp; Public Lands</b> |   |  |                                    |   |
| 4/2014                                | Analyze all <del>State-owned</del> lands <b>within the Chesapeake Bay Watershed</b> for <del>reforestation/afforestation</del> <b>riparian buffer</b> opportunities (Section 11.1.1.2)  | Internal review                                  | DNREC                              | An analysis was completed for tax ditch areas on state owned lands. Meetings will be held in spring 2014 with public land owners to discuss restoration efforts. DNREC's Watershed Assessment & Management Section, Delaware Forest Service, DNREC's Division of Fish & Wildlife, the Conservation Districts, and US Forest Service will be in first quarter 2014 to discuss implementing riparian forest buffers with potential incentives.<br><b>DNREC conducted a GIS analysis to identify opportunities for future implementation of forested (reforested or afforested) and/or grassed riparian buffers on publically and privately owned lands in the Chesapeake Bay Watershed. The analysis is complete; however, QA/QC is still needed for Sussex County. A report was drafted for public opportunities in September 2014. The analysis and report to be finalized by second quarter 2015.</b><br><br>The analysis and report were finalized in 2015. The analysis revealed that the majority of public lands in the Chesapeake Bay portion of Delaware already have a buffer in place. |
| 12/2015                               | Cover crops (Section 9.2.3)   | Policy; increased acreage in progress submission | DNREC, Division of Fish & Wildlife | As cover crop leases are renewed/ rebid, farmers will be required to plant cover crops on all fields not planted as double crop soybeans. All lands in New Castle County will be covered under this new policy in 2014, Kent County in 2015, and Sussex County in 2016. New acreage will be provided in progress submissions.<br><b>Lessees are encouraged to enroll in the Conservation District's cover crop cost share program. Any acreage enrolled in the program was submitted for 2015 progress.</b>   |



## Delaware's Restore Clean Water Action Items

| Target Date       | Milestone<br>(Phase 2 WIP Section Reference)                                 | Deliverable | Lead Agency                            | Comments/Status Updates  |
|-------------------|--|-------------|--|--|
| 4/2014<br>12/2016 | Development of online reporting tool<br>NEIEN data submission (Section 10.5) | Website     | DNREC, Watershed<br>Assessment Section | <p>DNREC has worked with Tetra Tech Inc. to develop an online database for the reporting and tracking of NPS BMPs in DE, including restoration practices. This tool will be finalized in early 2014 and will be utilized for 2014 National Environmental Information Exchange Network (NEIEN) submissions. Individuals responsible for reporting practices from their organizations will be given login credentials to do so. This milestone was previously reported as “establishing a BMP tracking database” and “establishing restoration database”, but it’s been decided that these efforts should be combined and an online NPS BMP reporting/tracking tool would be more beneficial. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>The DNREC Nonpoint Source BMP Reporting and Tracking Database was developed by Tetra Tech; however, was not utilized by users for 2014 progress reporting. DNREC’s IT Department was reorganized by the State of DE and experienced high turnover. As a result, the database was not given the necessary time to appropriately launch or provide training opportunities. Tetra Tech was, once again, contracted to handle data reporting responsibilities for the 2014 Progress Submission. Tetra Tech was contracted using funding through the Chesapeake Bay Regulatory and Accountability Grant Program. The NPS Database is a priority in 2015. DNREC will work with the State Department of Information and Technology to finalize and publish online. Training will be provided in September 2015 so users can upload data before the progress submission deadline.</p> <p>The database has not been finalized because of the backlog of projects with the Delaware’s Department of Technology and Information. DNREC will continue to utilize the Tetra Tech contract for historical and progress submissions.</p> |
| 12/2015           | Improving tax ditch management<br>(Section 10.4.1)                           | New staff   | DNREC                                  | A water resources planner has been hired by Sussex Conservation District to work with tax ditch managers and our drainage program in Sussex County to identify restoration opportunities on tax ditches, develop conservation plans and improve management plans, and track and verify implementation of BMPs and plans with tax ditch associations in Sussex County. Kent Conservation District is already providing this service and has been for the last two years, as demonstrated in our CBRAP semi-annual reports. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program. Project implementation   |

## Delaware's Restore Clean Water Action Items

| Target Date  | Milestone<br>(Phase 2 WIP Section Reference)          | Deliverable    | Lead Agency      | Comments/Status Updates  |
|--------------|---|----------------|------------------|--|
|              |   |                |                  | <p>funded through Chesapeake Bay Implementation Grant.</p> <p>A Water Resources Planner was hired to assist with tax ditch management. To date the planner has:</p> <ul style="list-style-type: none"> <li>• Provided technical assistance to 49 tax ditch organizations in the Chesapeake Bay Watershed and 17 private landowners in the watershed.</li> <li>• Performed 50 site inspections of ditch systems.</li> <li>• Provided technical assistance to 34 tax ditch organizations with financial assistance questions, concerns, or application and/or payment processing.</li> </ul> <p>The Water Resource Planner completed the following:</p> <ul style="list-style-type: none"> <li>• Provided technical assistance to 98 tax ditches and 3 private landowners</li> <li>• Performed site inspections of 85 ditch systems</li> <li>• Provided technical assistance to 42 tax ditch organizations with financial assistance questions, concerns, or applications and/or payment processing.</li> <li>• Completed 6 conservation/maintenance plans on tax ditches and is in the process of completing conservation/maintenance plans on 14 other tax ditches.</li> </ul>                           |
| 2014<br>2016 | Implementation of Nanticoke Restoration Plan (10.4.1) | Implementation | DNREC, USFWS, DU | <p>Projects have been identified through the Nanticoke Restoration Plan. The Nanticoke Restoration Group will be meeting in early 2014 to prioritize potential projects for funding and landowner outreach objectives. The USFWS are waiting on Court order changes to alter sections of the Nanticoke Tax Ditch. This project funded through Chesapeake Bay Implementation Grant.</p> <p>Plan implementation ongoing. In 2014, The Nanticoke Stream Restoration Project was a focus. Due to the complexity of the design, costs have increased and construction is delayed. The court order change document has been signed and approved. Additional surveys were needed to help the design process and to satisfy permit requirements. USFWS have a 90% design that was reviewed by DNREC and their comments for both sediment and erosion control and design changes have been incorporated. USFWS are in the process of rerunning the HEC RAS model to satisfy part of the permit requirements. USFWS plan to finish the design, submit for the permit, and put the project out to bid in January.</p> <p>Other projects identified in the Plan include Deep Creek (floodplain reconnection) and</p> |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference) | Deliverable | Lead Agency | Comments/Status Updates   |
|-------------|--|-------------|-------------|---|
|             |  |             |             | <p>Chesapeake Tract (wetland restoration) of Redden State Forest, and a wetland restoration project at Taber State Forest. These projects will be constructed by Sussex Conservation District with oversight by USFWS. These projects will be completed by September 2015.</p> <p>This project has been planned and designed to maintain approximately 4,342 linear feet of the Nanticoke River Tax Ditch using a natural channel design approach to restore drainage capacity, while creating stream bed habitat diversity and reducing bank erosion between Redden Rd and Fawn Rd. East of Bridgeville, Sussex County, Delaware. This is a critical fishery habitat in the State and this approach will improve it while allowing the tax ditch to be maintained for the first time since original construction in the early 1970's. The project was approved by the Resource Conservation and Development Project by the Joint Committee for Capital Improvement in 2008.</p> <ul style="list-style-type: none"> <li>• DNREC WAMS, DNREC Drainage Section, and SCD have developed an Interagency Project Agreement for the Nanticoke Tax Ditch/Stream Restoration Project. Funds have been encumbered to DNREC Drainage to the Sussex Conservation District.</li> <li>• Sussex Conservation District is handling the project and was opened for bid on July 2, 2015 - <a href="http://www.sussexconservation.org/sites/default/files/Full%20Bid%20Package%20Final.pdf">http://www.sussexconservation.org/sites/default/files/Full%20Bid%20Package%20Final.pdf</a></li> <li>• During this reporting period, the following activities have occurred: <ul style="list-style-type: none"> <li>• secured all Landowner Agreements,</li> <li>• received all necessary permits,</li> <li>• solicited bids for contractor</li> <li>• secured contractor, Meadville Land Service, Inc.</li> </ul> </li> </ul> <p>The anticipated construction start date is January 4, 2016. CBIG 1 Funding will be used to complete the first phase; additional funds from CBIG 2 will be used for this project. <i>This milestone has been moved to Delaware's 2017 draft milestones.</i></p> |

Delaware’s Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)              | Deliverable     | Lead Agency | Comments/Status Updates   |
|-------------|---|-----------------|-------------|---|
| 12/2015     | Per SB 78, Develop recommendations for non-tidal wetlands | Recommendations | DNREC       | <p>Develop comprehensive recommendations for conserving and restoring non-tidal wetlands in Delaware, including evaluating national best practices and standards, evaluating incentive-based programs, and reviewing state and federal wetland permitting processes to identify opportunities to improve efficiency and eliminate redundancy.</p> <p>The Committee met 11 times from September 2013 to September 2014. Eleven recommendations were brought to a Committee vote. Three recommendations were characterized as regulatory and did not pass. Eight recommendations were characterized as incentive-based. All eight of the incentive-based votes passed:</p> <ul style="list-style-type: none"><li>• Recommending a consistent source of funding for the Forestlands Preservation Program</li><li>• Recommending the Land and Historic Resources Protection Incentives Act be amended and expanded to create greater incentives to private landowners to protect and preserve wetlands</li><li>• Recommending that the General Assembly make yearly allocation of \$200,000 for the Forestlands Preservation Program</li><li>• Recommending changes to the Conservation Tax Credit Program to include Category 1 wetlands as conservation value, adjusting the individual maximum credit, and allowing transfer of tax credits to third parties</li><li>• Recommending that DNREC map all Category 1 wetlands and conduct outreach of incentive programs to landowners with Category 1 wetlands</li><li>• Recommending semi-annual meetings be held between the Ag Preservation Foundation, Open Space Council, Conservation NGO’s and pertinent federal agencies to identify land conservation opportunities</li><li>• Recommending amending the Real Estate Transfer Tax to divert funds directly to the Ag Preservation Foundation and increase state funding from \$10 million to \$15 million per year</li><li>• Recommending the Open Space Program have similar dedicated funding of \$10 million dollars per year</li></ul> <p>The Delaware Wetland Advisory Committee Final report was released in November 2014 and can be found at - <a href="http://www.dnrec.delaware.gov/swc/wa/Documents/Wetland%20Advisory%20Committee/Final%20Report/DWAC%20Final%20Report.pdf">http://www.dnrec.delaware.gov/swc/wa/Documents/Wetland%20Advisory%20Committee/Final%20Report/DWAC%20Final%20Report.pdf</a></p> |

## Delaware's Restore Clean Water Action Items

| Target Date        | Milestone<br>(Phase 2 WIP Section Reference)                                     | Deliverable                          | Lead Agency                  | Comments/Status Updates  |
|--------------------|--|--------------------------------------|------------------------------|--|
|                    |  |                                      |                              | No progress to report. The committee didn't meet in 2015.  |
| 3/2014 &<br>3/2015 | Train 35 Creekwatcher volunteers for the 2014/2015 season (Section 14.4.2)       | Trained Creekwatcher Volunteers      | Nanticoke Watershed Alliance | <p>Train 35 volunteers covering 36 field sites. Portions of this project funded through Chesapeake Bay Implementation Grant.</p> <p>The NWA trained 46 Creekwatcher volunteers for the 2014 season.</p> <p>The NWA trained 35 Creekwatcher volunteers for the 2015 season. In addition, six Creekwatchers attended the alternative training held on March 29 at the NWA's office in Vienna, Maryland. Delaware Technical and Community College partnered with the program and placed water quality students with Delaware-based Creekwatchers for the first three sampling periods during the season. The students shadowed Creekwatchers, assisting with monitoring duties, and reported on their experiences.</p>  |
| 3/2014 &<br>3/2015 | Develop Creekwatchers kits for water quality analysis (Section 14.4.2)           | Prepared water quality analysis kits | Nanticoke Watershed Alliance | <p>21 equipment kits prepared. New to this year is the testing for Chlorophyll a. This testing is necessary because it examines the presence of algal blooms and therefore nitrogen pollution. This project funded through Chesapeake Bay Implementation Grant.</p> <p>The NWA secured funding to outfit all 21 Nanticoke Creekwatcher kits with 10-meter cables for dissolved oxygen (DO) meters. In addition, the NWA purchased four Pro2030 DO meters, which allow salinity to also be measured in the water column, which is of critical importance in the brackish lower sections of the watershed.</p> <p>The NWA prepped 21 kits for seasonal use. Kits now include horizontal Van Dorn water samplers. The NWA updated the Quality Assurance Project Plan to reflect changes in equipment and protocol and submitted to DNREC at the beginning of May.</p> |
| 12/2014            | Review Tributary Action Teams recommendations for consistency (Section 11.1.1.2) | Internal review                      | DNREC                        | The Watershed Assessment Section of DNREC along with NonPoint Source Program staff are currently reviewing all watershed based plans statewide (Whole Basin, Pollution Control Strategies and Tributary Team Recommendations; 319 Program Watershed Plans, etc for consistency and improved prioritization. This is an internal review process that is expected to   |

**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b>    | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>   | <b>Deliverable</b>   | <b>Lead Agency</b>                        | <b>Comments/Status Updates</b>   |
|-----------------------|--|----------------------|---|--|
|                       |  |                      |   | <p>be completed by the end of 2014.</p> <p>Tributary Team recommendations were used in the development of both the WIP and the 319 plans A-I plans; but review has not been completed due to other priorities. DNREC is working on an integrated plan for the Governor's "Clean Water for Delaware's Future Initiative". As part of the integrated plan, DNREC will review Whole Basin, Tributary Action Team recommendations and evaluate the Whole Basin and the TMDL processes as well.</p> <p>This project has been completed.</p>                                 |
| Third Quarter 2014    | NPS Watershed plans meeting EPA's A-I criteria   | 4 Watershed Plans    | DNREC NPS Program                         | <p>Upper Chesapeake completed and approved by EPA in 4<sup>th</sup> quarter 2013. Pocomoke/Wicomico plan submitted in 2<sup>nd</sup> quarter 2014. Lower Chesapeake and Nanticoke/Marshyhope are due third quarter 2014.</p> <p>Completed - All plans were completed and approved by EPA fourth quarter 2014.</p>  |
| <b>Communications</b> |  |                      |   |  |
| 3/2014                | Septic Rehabilitation Loan Program and Septic Extended Funding Option advertising campaign (Section 14.5.2-14.5.3) | Advertising campaign | DNREC                                     | <p>Printing advertising in Kent &amp; Sussex County for Septic Loan Rehabilitation Program. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program and Implementation Grant.</p> <p>Printed advertising was not pursued in 2014; however, septic pump-out and inspection program was advertised via direct mailing in December 2014. A total of 2,400 postcards were mailed. Forty residents participated in the pump out and inspection program.</p> <p>SRLP and SEFO are continuously promoted at outreach events and workshops.</p> |
| 11/2014               | Host Center for Watershed Protection Webinars (Section 14.5.1-14.5.3)  | Webinars             | DNREC and Center for Watershed Protection | <p>DNREC will host viewings of webinars that are being put together by the Center for Watershed Protection. Webinar topics include "Reimagining the parking lot &amp; roadway as a stormwater practice", "The role of local codes", "Design &amp; construction of BMPS", "BMP maintenance", "How to pick the right vegetation for bioretention &amp; its cousins", "stream restoration as a pollutant reduction strategy", "Local TMDLs &amp; Regional/River Basin TMDLs: a happy engagement or shotgun wedding?", "Retrofitting existing stormwater</p>               |



**Delaware's Restore Clean Water Action Items**

| <b>Target Date</b> | <b>Milestone<br/>(Phase 2 WIP Section Reference)</b>                | <b>Deliverable</b> | <b>Lead Agency</b> | <b>Comments/Status Updates</b>   |
|--------------------|---|--------------------|--------------------|--|
|                    |   |                    |                    | <p>ponds &amp; basins". The webcasts will be offered for free by DNREC. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>DNREC hosted the following webinars in 2014 with 84 participants:</p> <ul style="list-style-type: none"> <li>• Reimagining the Parking Lot and Roadway as a Stormwater Practice</li> <li>• The Life of a Stormwater Practice: The role of Local Codes and Design &amp; Construction of BMPs</li> <li>• BMP Maintenance</li> <li>• How To Pick The Right Vegetation for Bioretention &amp; Its Cousins</li> <li>• Stream Restoration as a Pollutant Reduction Strategy</li> <li>• Local TMDLs &amp; Regional/River Basin TMDLs: A Happy Engagement or a Shotgun Wedding?</li> <li>• Retrofitting Existing Stormwater Ponds &amp; Basins</li> </ul> <p>2015 Center for Watershed Protection – Hosting Webinar Viewings</p> <ul style="list-style-type: none"> <li>• February 18 2015: Using Illicit Discharge Programs to Monitor Bacteria</li> <li>• March 18 2015: The Runoff Reduction Method &amp; Its Applications</li> <li>• May 20 2015: Green Infrastructure &amp; Green Jobs</li> <li>• September 16: What to Do About Trashy Watersheds</li> <li>• November 18: Checking in on Post-Construction Stormwater Management</li> </ul> |
| 12/2014            | Hold public outreach events to promote WIP efforts (Section 14.5.3) | Public outreach    | DNREC              | <p>Participate/exhibit/host/present/provide materials for at least 18 outreach events or presentations throughout the State including all major outreach events throughout the Chesapeake Bay Watershed. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <ul style="list-style-type: none"> <li>• Rommel Outdoor Resources Conservation Fair (Reach 45)</li> <li>• 2014 Exhibit at Partnership for the Delaware Estuary Wilmington Earth Day Event 4/22/14 (Reach 80)</li> <li>• Seaford Schoolyard Habitat Event exhibit 5/5/14 (Reach 175)</li> <li>• Seaford Go Green Night exhibit 5/16/14 (Reach 40)</li> <li>• Seaford Town and Country Fair exhibit and demonstrations 5/24/14 (Reach 70)</li> <li>• Bethany Rain Barrel Building Workshop (Reach 12)</li> </ul>  |

Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference) | Deliverable | Lead Agency | Comments/Status Updates  |
|-------------|--|-------------|-------------|--|
|             |  |             |             | <ul style="list-style-type: none"> <li>• Seaford City Council Presentation (Reach: 10)</li> <li>• Sussex Library Adult Services Group Presentation (Reach: 10)</li> <li>• State Fair 7/19/14 – 7/26/14 (Reach 10,000) <ul style="list-style-type: none"> <li>○ Algae display</li> <li>○ What's in your water display</li> <li>○ Rain Barrel Painting Competition –display of barrels, voting, and announcement of winners by Governor Markell</li> </ul> </li> <li>• Greenwood National Night Out exhibits 8/12/14 (Reach 80)</li> <li>• Woodland Ferry Festival 9/13/14 (Reach 65)</li> <li>• 2014 Coast Day: Various Watershed Stewardship exhibits (Reach 200)</li> <li>• 2014 Rain Barrel Painting Competition: Local artists and students compete to design and paint rain barrels for public awareness (Reach approximately 5,000)</li> <li>• Master Gardeners Presentation (Reach 55)</li> </ul> <p>2015</p> <ul style="list-style-type: none"> <li>• Social media promotion –Rain barrel giveaway (Reach 135)</li> <li>• Development of new homepage for Watershed Assessment and Management website</li> <li>• Reclaim Our River Program: Monthly events, workshops and recreational opportunities in the Nanticoke Watershed. A watershed wide approach to providing residents with important information and techniques of reducing nutrient and sediment pollution. Any water oriented recreational activities provide opportunities to share this messaging while connecting residents to their waterways.</li> <li>• Arbor Day planting in Blades 4/24/15</li> <li>• Nanticoke River Marine Park Festival 5/17/15</li> <li>• Nanticoke Riverfest -Boat Parade in Seaford 7/10/15 (Reach 100)</li> <li>• Nanticoke Riverfest -Delaware Watersheds Tent in Seaford 7/11/15 (Reach 250)</li> <li>• Wade In at Trap Pond and launch of floating wetlands 7/16/15 (Reach 30)</li> <li>• Recycled Cardboard Boat Regatta in Blades 8/8/15 (Reach 250)</li> <li>• Laurel Ramble Better Block Event (Reach 100)</li> </ul> |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)  | Deliverable                       | Lead Agency | Comments/Status Updates   |
|-------------|---|-----------------------------------|-------------|---|
|             |   |                                   |             | <ul style="list-style-type: none"> <li>• 2015 Rain Barrel Art Contest (Reach 5,000)</li> <li>• Nanticoke Paddling Club monthly paddles (Reach 30)</li> <li>• Greenwood Night Out –Outreach event(Reach 80)</li> <li>• Delaware State Fair <ul style="list-style-type: none"> <li>○ Outreach exhibits (Reach 8,000)</li> </ul> </li> <li>• Rain Barrel Demo (Reach 20)</li> </ul>  |
| 12/2014     | Participate/host 6 workshops (Section 14.5.3) | Public outreach through workshops | DNREC       | <p>Workshops that focus on the efforts of the WIP will be organized and held throughout the year. The workshops will discuss various topics but all will focus on what the public can do to help improve water quality within the Chesapeake Bay watershed. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program and Implementation Grant.</p> <p>Developed the “Reclaim Our River Nanticoke Series”, which includes monthly events, workshops and recreational opportunities in the Nanticoke Watershed. A watershed wide approach to providing residents with important information and techniques of reducing nutrient and sediment pollution. Water oriented recreational activities provide opportunities to share this messaging while connecting residents to their waterways.</p> <ul style="list-style-type: none"> <li>○ Living Shorelines Workshop -3/1/14 (Reach 30)</li> <li>○ Certified Wildlife Habitat Workshops: 3/17/14 and 3/27/14 (Reach 15)</li> <li>○ Rain Barrel Building Workshop: 4/12/14 (Reach 14)</li> <li>○ Nanticoke River Park Festival (Exhibits and demonstrations with partners): 5/4/14 (Reach 65)</li> <li>○ Eco Kayak and Canoe paddle on the Nanticoke (Guided paddle and guest speakers focusing on water quality): 6/21/14 (Reach 55)</li> <li>○ Nanticoke Riverfest (Exhibits/demonstrations and rain barrel building with partners): 7/12/14 (Reach 200)</li> <li>○ Recycled Cardboard Boat Regatta (fun activity with exhibitors and guest speakers focusing on water quality): 8/9/14 (Reach 150)</li> <li>○ Guided Nature Walk and Celebration Event 9/20/14 (Reach 45)</li> </ul> <p>2015</p> <ul style="list-style-type: none"> <li>• Georgetown Rain Barrel Building Workshop 3/21/15 (Reach 25)</li> </ul> |

Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)          | Deliverable                      | Lead Agency | Comments/Status Updates   |
|-------------|---|----------------------------------|-------------|---|
|             |   |                                  |             |   |
| 12/2014     | BMP displays in local hardware store (Section 14.5.3) | Public outreach through displays | DNREC       | <p>Three different stormwater BMP displays will be installed throughout the year in a local hardware store within the Chesapeake Bay watershed. The displays will educate the public on how to reduce their impact on water quality. Supplies to build the BMPs will be available within the store. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>A rain barrel displays was exhibited in a local ACE hardware store in Seaford. DNREC and NWA attended a local hardware store's Outdoor Resource Fair in April 2014 and provided attendees with information on homeowner BMPs. Additionally, the store has assisted with the distribution of Delaware State Park's water trail maps.</p> <p>2015</p> <ul style="list-style-type: none"> <li>• Temporary Smartyard BMP displays at Lakeside Greenhouses in Laurel 4/25/15</li> <li>• Temporary Smartyard BMP displays at Jeff's Greenhouses in Bethel 5/16/15</li> <li>• Temporary Smartyard BMP display at Soroptimist Park in Seaford 6/13/15</li> </ul> |
| 12/2014     | 6 outreach/educational videos (Section 14.5.3)        | Public outreach through videos   | DNREC       | <p>Six new videos focusing on BMPs and other WIP related information will be created and posted on DNREC's website. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>Six videos were developed during 2014:</p> <ul style="list-style-type: none"> <li>○ 2014 Septics 101 <ul style="list-style-type: none"> <li>▪ <a href="#">Systems Overview</a></li> <li>▪ <a href="#">Failure &amp; Risks</a></li> <li>▪ <a href="#">Maintenance</a></li> </ul> </li> <li>○ <a href="#">Rain Barrel Building</a></li> <li>○ <a href="#">Stormwater</a></li> <li>○ Recycled Cardboard Boat Regatta video (Completed but will be released in</li> </ul>  |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference) | Deliverable                     | Lead Agency    | Comments/Status Updates   |
|-------------|--|---------------------------------|----------------|---|
|             |  |                                 |                | <p style="color: red;">Spring 2015 to promote the 2015 event)</p> <ul style="list-style-type: none"> <li>○</li> </ul> <p>2015: 3 new videos were added to Delaware Watersheds playlist</p> <ul style="list-style-type: none"> <li>• Mr. Raindrop added</li> <li>• Recycled Cardboard Boat Regatta produced and added</li> <li>• Laurel Ramble produced and added</li> </ul>   |
| Spring 2014 | Rain Barrel contests (Section 14.5.1-14.5.3) | Public outreach through contest | DNREC & DelDOT | <p>DNREC &amp; DelDOT will be sponsoring a contest to educate the community on the benefits of using rain barrels to reduce rainwater runoff and improve water quality. Selected children's groups and artists will be invited to paint creative designs on a rain barrel. The rain barrels will be judged and displayed in prominent locations in Delaware. This project funded through NPS 319 Program, Chesapeake Bay Implementation Grant, <b>and Delaware Department of Transportation (DelDOT).</b></p> <p style="color: red;">DNREC and DelDOT are sponsored two contests in which local artists and children compete to design and paint the best rain barrel. The contest highlighted the benefits of using rain barrels to reduce rainwater runoff and improve water quality. During the month of April, the 11 finalist barrels were on display at the Delaware Agricultural Museum in Dover, through May 16, 2014. The grand prize winner was announced on Governor's Day at the Delaware State Fair. This rain barrel is displayed at the Governor's Residence, Woodburn in Dover. More information about the contest and pictures of the winning barrels can be found at: <a href="http://delawarewatersheds.org/2014-artistic-rain-barrel-contest/">http://delawarewatersheds.org/2014-artistic-rain-barrel-contest/</a></p> <p style="color: red;">The 2015 rain barrel contest will kick off in February 2015. Rain barrels have been donated from Dogfish Head Brewery and Coca-Cola.</p> <p>DNREC sponsored two Rain Barrel Art Contests in which local artists and children compete to design and paint the best rain barrel. Voting took place online and winners were announced at Governor's Day at the Delaware State Fair with the winning Artist's barrel being installed at the Governor's residence, Woodburn in Dover. Reach (5,000)</p> |

## Delaware's Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference)                                 | Deliverable   | Lead Agency | Comments/Status Updates  |
|-------------|--|---|-------------|--|
|             |  |   |             | Collection of 60 Rain barrels from Dogfish Head Brewery and Coca-Cola for 2016 Rain Barrel Art Contest and Rain Barrel Building Workshops.   |
| 9/2014      | Race for Our Rivers 5k Run and Fun Walk (Section 14.5.1-14.5.3)              | Public event  | DNREC       | Monthly series of workshops, events and other efforts in the Nanticoke Watershed culminating in a celebration in September along with the 2014 Race for Our Rivers 5k Run and Fun Walk. Individuals will be encouraged to participate in multiple portions of the series and those who attend 3 or more events will be recognized at the 2014 celebration event as “Nanticoke River Rescuers/Heroes”. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program and Implementation Grant.<br>DNREC along with partners the Delaware Nature Society, Nanticoke Watershed Alliance, Town of Blades, and the Nanticoke River Watershed Conservancy held a Watershed Celebration Event with guided nature walk on 9/20/14 at Chapel Branch Nature Area in Seaford. The event was part of the Reclaim Our River Series celebrating Delaware's efforts to improve water quality. Forty-five residents participated in the event which included music, live demonstrations, guided hikes, and educational displays.<br>Event discontinued after 2014 |
| 12/2014     | Promote public pledges to improve water quality in Delaware (Section 14.5.3) | 2,000 new pledges   | DNREC       | 2,000 New Pledges (Promises to take action to improve water quality in Delaware). This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.<br>A total of 2,986 pledges were collected at the 2014 Delaware State Fair.<br>550 Pledges to take action to improve Delaware's waterways collected at State Fair 7/30/15  |
| 12/2014     | Update and create new promotional materials (Section 14.5.1-14.5.3)          | New/Updated promotional materials; social media announcements | DNREC       | Monthly Delaware Watersheds social media promotions/giveaways; daily updates; quarterly Delaware Watersheds newsletter; email blasts as needed; media releases as needed; Update existing promotional materials; create new materials for upcoming Septic Pumpout and Inspection Program; delivery of displays and brochures to state service centers, libraries, churches, etc. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program and Implementation Grant.<br>New promotional materials were developed for the Reclaim Our River 2014 series and materials are being developed for the 2015 series including flyers and an online series guide providing more information on registration sites and event details.<br>New promotional display made for outreach events –Promotes activities citizens can  |



Delaware’s Restore Clean Water Action Items

| Target Date | Milestone<br>(Phase 2 WIP Section Reference) | Deliverable | Lead Agency | Comments/Status Updates   |
|-------------|--|-------------|-------------|---|
|             |  |             |             | participate in to help reduce nutrient and sediment pollution entering Delaware’s waterways |